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The Charlotte Medical Journal

VOL. LXXXI CHARLOTTE, N. C., JANUARY, 1920. No. 1

ANESTHETICS IN MIDWIFERY.*

By Dr. J. E. Ashcraft, Monroe, N. C.

No other contribution to the science of obstetrics has been so beneficial as the introduction of anesthesia. In addition to the unmeasurable suffering it has prevented, it has acted directly and positively toward the development of the art itself by making possible manipulations and procedures which were before impossible or unthought of.

Sir James Y. Simpson, in January, 1847, delivered with ether the first woman ever under an anesthetic in parturition, and in November of the same year he began the use of chloroform in labor. His defence of the practice maintains with equal force today: **"pain in excess is destructive, and even ultimately fatal, and the great pain accompanying parturition is no exception to this general pathologic law."**

He was not satisfied with the results he obtained unde rether; he did not consider chloroform perfect; and after seventy years' use of these and many other agents for induction of amnesia and anesthesia, when indicated in the lying-in chamber, the ideal agent is yet unknown. Ether, chloroform, chloral, opium, morphine, nitrous oxide, cocaine locally to cervix and external genitals; morphine-scopolamin; pantopon; heroin, and tocanalgin; all have been tried—all have had their enthuisastic advocates—but none have produced results sufficiently satisfactory to convince and convert the profession, as a whole, to their use. The profession demands more of an anesthetic than they formerly required. Not so long ago, anybody who could hold an ether can and tell the patient to "breathe deeply" was considered "good enough" to give the anesthetic in surgical operations. Of later years we have exacted more skill and experience from the anesthetist, and more exact results from our anesthetic, in the surgical operating room; but only a very few physicians have given the matter the attention it deserves in obstetrics—where two lives, instead of one—are at stake.

ETHER.—The year 1847 saw the introduction of ether in midwifery. While Simpson experimented in Edinburg, Dubois and Deschamp worked in Paris, and Morton and Keep in Boston. Ether is undeniably the safest of all anesthetics for obstetrical use, with the sole exception of nitrous oxide, and many of the well known objections to its employment may be minimized by skillful administration. The drop method, in the hands of an expert, yields a result almost faultless, and absolutely without danger to mother or child, and happily without the haunting fear of dangerous post partum hemorrhage. It is begun only when the head shows the first bulging of the perineum, and carried only to the point of analgesia, when this stage is maintained through the second stage of labor. Amnesia is not necessary, unless instrumental interferance becomes imperative, when it is easily and quickly secured. The amount required is astonishingly small, and decreases as the operator's skill increases with added administrations.

Conceding the more rapid impression upon the patient by chloroform, and admitting all the claims for the convenience of the operator in its use, we still insist that these items will progressively diminish in importance, as the physician extends his experience with the drop method of giving ether in the parturient patient. In short, the preponderance of professional partiality toward chloroform in labor is due solely to the lack of knowledge of how to give the safer anesthetic—ether—skillfully, to meet the indications at hand. The skillful anesthetist in a surgical operating room is no more than a novice when he essays exact results with ether in the lying-in chamber; unless, of course, in those cases where surgical anesthesia is required for prolonged instrumental manipulations. We are not discussing exceptional cases, but the routine employment of the anesthetic to the point of analgesia, as required in many strictly normal cases of obstetrics.

CHLOROFORM.— Chloroform was the second anesthetic employed in midwifery, and it has maintained its lead in the preferences of the majority of conservative physicians, in the face of newer claimants for popular favor. The earlier experimenters employed chloroform only during instrumental interference, or for the time the head was passing over the perineum. Soon came familiarity with the agent, and there seemed to be no limita-

*Read before the Seventh District Medical Society which met in Gastonia October 6-7, 1919.

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tion to the length of the anesthesia—Snow continued its administration continuously for 31 hours in one case; and Prothero Smith for 28 hours in another case; and Simpson for 14 hours in still another case—and in none of them was either the mother or the infant considered to be in danger. It became currently believed that chloroform, in labor, was devoid of any danger whatever, and it was given recklessly. We are unable to cite statistics in support of our belief that grave consequences must have followed such careless use of this powerful agent, but we can point to the fact that with increased knowledge of the action of chloroform upon the excretory organs the use of chloroform has been restricted, in the hands of the better class of obstetrcians, to the latter part of the second stage of labor. Outside of the known physiology of chloroform excretion, we have the undisputed statements of the highest authority that death from chloroform nearly always occurs under "light" anesthesia, and this is the type sought to be attained by those who use it for hours in obstetrical work. The wiser man withholds it until the time of greatest need, and then pushes it to the point of full surgical anesthesia as quickly as possible. Our maturer knowledge leads us to shorten the anesthesia as much as possible, moreover, to avoid the predisposition to post-partum hemorrhage consequent upon the employment of the chloroform anesthesia.

Those who have given chloroform routinely in obstetrical work acquire the keen judgment necessary to stop short of seeming danger of either the dreaded post partum hemorrhage, or the alarming syncope. Such skill is not acquired by the novice, but, when attained, seems to be devoid of danger over a period of ffrom one to three hours, when inhalation is given only during the period of uterine contraction.

NITROUS OXIDE.—Admittedly the safest of all general anesthetics, it was certain that experimenters would think of the use of nitrous oxide in obstetrcis. Bert, in 1878, advised its use, and Klikowitsch in 1880 reported 25 successful cases wherein he had employed it. The earlier experimenters failed to secure uniform results, due in some measure to their imperfect apparatus, and undeveloped technique. Guedel has collected more than 1800 reports of cases in which it was employed, with 98.5 per cent listed as "favorable"; the unfavorable reports carried nothing more detrimental than lack of relief from pain.

It has no known deleterious effect on either mother or child, although a mild headache is common following its employment. It does not produce irritation of the mucous membranes of the nose or throat, and muscle tonicity is not impaired. Analgesia is the end desired, and not narcosis. The administration is only continued during the expulsive effort, and cases are reported where it has been in use for ten hours, without discoverable harm.

Outside institutional delivery, the use of method requires a portable apparatus, consisting of inhaler, gas bags, and regulating valves; and two tanks. An apparatus is now on the market which can be easily transported in the ordinary buggy or automobile.

The technique of administration is said not to present any difficulties, but it is certain that ideal results are only possible after one has a considerable experience with the method, and it is impossible to predicate how the individual patient will accept and react to the method. Death or serious accident with nitrous oxide anesthesia in obstetrics is highly improbable in the normal woman; but may occur under any of three conditions (1) Asphyxia; (2) Cardiac dilatation; and (3) Apoplexy.

The expense of employing nitrous oxide anesthesia in labor, and the added inconvenience of transporting the equipment, will deter many from giving the method the fair trial it deserves. But in cases financially able to ignore the expense, and with the preponderance of evidence as to the entire safety of the method, one may at least consider if he has the moral right to place his convenience in the balance against the known advantages of nitrous oxide anesthesia.

MORPHINE - SCOPOLAMINE.—Schneiderlein, in 1902 first used and advocated the use of morphine-scopolamine in obstetrics. The following year Von Steinbuchel developed the technique, and Kronig, Pankow, and Gauss experimented with it extensively, with varying success. Heralded by many as the long sought ideal anesthetic in labor; "promoted" by drug houses through commercial instincts; extensively employed by many physicians who had been chary in the employment of other anesthetics; assiduously cultivated by lay magazines and ladies' journals; it swept to great popularity in a shorter time than any other obstetrical

anesthetic has ever attained in like period. It has been thoroughly discussed and investigated in all parts of the world, especially in America. It has not borne out the early claims made for it, and of late it has come in for severe condemnation in many quarters. Many competent observers now declare that it has no valid place in the equipment of any practician doing general practice, and that its use should be strictly limited to those who make a specialty of obstetrical work, and who do that work within a hosiptal where abundant trained help is at hand.

It is conceded that, in a labor already well established, it may be employed during the first stage without unduly prolonging it. But the morphine-scopolamine combination is a first stage anesthetic, and it is not here that we oftenest feel the need of an anesthetic. It is admitted by all with experience in its use that it prolongs the second stage of labor, and increases the hazard of foetal asphyxia directly and definitely in proportion to that prolongation. This combination is already limited in its scope. It must not be used in cases of suspected foetal death in utero. It must be avoided in primary uterine inertia. It is not to be used till the os has dilated to the size of two fingers. It seriously complicates the common accidents of labor, and should never be employed in the accidents of pregnancy. The infant is often narcotized, and in such condition bears the stormy passage under the public arch but poorly.

Many of its enthusiastic early supporters have abandoned its use, and its popularity seems to be progressively waning among the better class of physicians who have used it enough to realize its limitations.

Mass found 11 deaths as a result of the use of scopolamine in 1449 cases—a rate of one in 134.

DeMaurans collected reports of 22 scopolamine deaths; Wood reported statistics of 9 deaths due solely to the scopolamine; Deybert and Dupont reported 7 scopolamine deaths, and collected reports of 22 others from literature. Hatcher has given the number of fatalities from scopolamine in the United States as 30 up to 1910.

With any anesthetic which has been but comparatively few years before the profession, it is extremely difficult to judge as to the position it may ultimately occupy provided it seems to fulfill the need of the physician. However, there seems to be but little doubt as to the verdict in the case of this agent in obstetrics. However well it might serve to mask the pain, or induce forgetfulness of it, the mortality statistics already in evidence cannot fail to check the enthusiasm of any rational man. Any agent which can not escape a mortality rate such as those published must fall under the condemnation of the profession, in the end, for no man can defend himself in its use in the event of untoward results. While it is hardly to be hoped that an anesthetic which is absolutely safe will be produced, we can do no more than employ those which statistics have shown to be the least liable to induce dangerous symptoms or even death. Nor is it likely that we will ever be able to state the degree of danger present in any individual case; but already we can determine approximately the relative danger attending the use of the better known agents, and the relative danger of one death in each 134 administrations is too high to longer justify the use of this agent.

HEROIN.—Only two years ago, Kapp, of California, brought this drug to the attention of the profession by a report of 100 cases of delivery under its influence.

Mere analgesia is induced, and the patient sleeps lightly between expulsive efforts, being easily aroused at any time. If awakened, there is no mental dullness or confusion of ideas, and the patient is perfectly rational. The claim is boldly made that heroin induces a painless labor. It can be used by any physician with perfect safety in the home of the patient. The second stage of labor is said to be shortened because in the absence of pain the uterine contractions are advantageously augmented by willing expulsive efforts. The condition of the new mother is better by reason of the few hours sleep following the completion of labor, and so the customary exhaustion is abated. It is said to have no tendency whatever toward the induction of post partum hemorrhage, and to be absolutely harmless to both infant and mother.

An injection of 1-12 of a grain is given when the pains have become strong and regular, and the effect is produced within twenty minutes. The patient becomes drowsy and no longer complains of the pains. The dose exerts its influence over a period of two to three hours, and on the first complaint of pain, a second dose of 1-24 of a grain is given. This may be followed by other injections if needed, but

generally two doses are found to be sufficient.

The reports warrant extended trial of the agent, and it must be said the statements made and the claims advanced are more rational than those with which we have been assailed in the name of other drugs. We have great confidence in this drug as being the nearest approach to the long sought ideal obstetrical anesthetic.

TOCNALGIN is the latest candidate for favor in obstetrical analgesia and amnesia. While a hydration product of morphine, it exhibits none of the morphine characteristics, and is only one-fifteenth as toxic. Dessaignes used it first in obstetrics, reporting in July, 1914, 112 labors in which it was used. 75 per cent had complete analgesia; 22 per cent partial analgesia; and 3 per cent were unaffected. There were 115 babies, 77 of which cried spontaneously; 28 showed apnoea, but soon cried; one was born dead, but the fetal heart could not be heard before administering the tocnalgin. The remaining 9 had some asphyxiation, but breathed normally after establishment of respiration, and then progressed without incident.

It may be used in all normal cases of labor, but should not be employed in the presence of complications. It may be given at any time after the cervix admits two fingers, or during the second stage of labor, even within a few minutes of final delivery. 1 1-2 cc. are given at the first dose, and subsequent injections of 1-2 to 3-4 cc. are employed. Often one injection is sufficient, but two or three may be employed, if the contractions of the uterus become painful.

Tocnalgin is seemingly without danger to the prospective mother, but it does produce oligopnoea in some of the babies. The advantages claimed for it are:

1. Lessened toxicity in comparison with morphine.
2. It has no effect upon the uterine contractions.
3. Temperature and pulse remain normal following administration.
4. Lactation is undisturbed.
5. Involution is normal.
6. It does not predispose to postpartum hemorrhage.
7. Versions, forceps, and perineal repairs do not require further anesthesia.
8. 75 per cent of the labors are painless, with no after effects.

The published results of the use of tocnalgin encourage us to follow it up with more extended use, hoping that in it we have something nearer the ideal obstetrical analgesic than anything heretofore known.

RESULTS.—Within six months following the beginning of ether anesthesia, two deaths were recorded as due to its use. Simpson was undoubtedly influenced to experiment with chloroform in part because of the danger incident to ether anesthesia. Yet the same year in which he began the use of chloroform, at least one death was recorded as due to the anesthetic. Steadily down through the intervening years one may read the unbroken series of deaths due to the anesthetic, in various types and under varying technique of administration. And yet comparatively few physicians comprehend that i nevery case in which a general anesthetic is employed, we take our helpless patient down into the very valley of the shadow of death. What wonder, then, that the thinking men in the profession have long and earnestly desired an anesthetic devoid of danger? Especially insistent is this demand felt when one approaches the couch where a new life is to be ushered into the world, and the supremest happiness of womankind is to be attained after travail. Such environment cannot fail to appeal intensely to the highest attributes possessed by any man;—here, if ever—he is impelled to the greatest caution and the most painstaking skill of which he is capable, and here he must not fail to choose his anesthetic judiciously and administer it in the most skillful manner.

Because this is not always done, I have been impelled to present this subject in the manner outlined before you. Not that I pose either as an expert anesthetist or as an authority on things obstetrical; but that I am convinced that in these things we have been negligent, and that much real benefit to humanity will accrue from extended experience with at least two of the promising newer obstetrical anesthetics.

Dry statistics will help us to maturer judgment, and statistics can only be compiled from results. Statistics of te past teach us much, and it is your duty and mine to provide present day statistics for the benefit of coming novitiates in our art, and happily even for our own benefit.

As early as 1364 The Royal Medical and Chirurgical Society had a committee collect reports of 109 chloroform fatalities, and Kappeler brought the record up to 210 by 1876. In 75 cases the period of death was stated, and in 90 per cent of

these the patients died in the first fifteen minutes after the beginning of administration. From 1880 till 1889 The Lancet and The British Medical Journal reported 130 chloroform deaths, and fifty-four of these took place either before the operation began, or in the course of a trivial operation. 20,613 chloroform administrations were investigated in 1912, with a mortality of 1 in 2,060; the same author collected reports of 11,859 ether administrations, with one death in each 5,930 cases; also reported by some investigator were 10,230 cases in which chloroform was first use dto introduce anesthesia and then followed by ether, with the result of 1 death in each 3,410 cases. 700 chloroform deaths were reported in 1913, and in 223 of them death occurred before the operation was begun. In 1912 the committee of Anesthesia of The American Medical Association reported that: (1) The use of chloroform as an anesthetic for major operations is no longer justifiable; (2) for minor operations the use of chloroform should cease. No condemnation could be more sweeping as to the elements o fdanger in the use of this agent, and yet we have stilled our obstetrical conscience by the sop that every succeeding pain was sufficient to rouse the reflex nervous system so that theer was not the slightest danger—but—we have learned that many deaths occur in the first fifteen minutes of administration, and must ask ourselves what might happen in cases where the expulsive efforts were more than fifteen minutes apart.

These are not idle speculations, when we face the unimpeachable and unquestioned facts and figures. We do not know that the pains stimulate the reflex nervous system to a degree that precludes possibility of danger: we have only repeated that to ourselves so often that we have come to believe it, without really knowing anything about it except that our patients have escaped, so far. But, do we know that the next parturient woman to whom we administer chloroform may not go to swell these awful statistics? By no means an alarmist, I insist that sober consideration must give us a cause for caution. It must be palinly understood that these statistics only cover the immediate deaths from chloroform, and take no consideration of the fatalities consequent upon delayed chloroform toxemia.

What, then, in the face of these facts, is our duty? We may belong to that class who deem anesthetics in midwifery seldom absolutely necessary, and yet we must confess that they are sometimes needed imperatively. We may choose to ally ourselves with those who declare that there is no valid reason why any woman should suffer any twinge of pain because of the birth of a baby, when we are able to prevent such pai nabsolutely. We may occupy a conservative and middle ground, and declare that midwifery frequently requires the use of an anesthetic in normal delivery, and that we propose to make use of some agent for this purpose. The first class must and does use anesthetics; the second class always use them whether really needed or not; and the third class employ them when they deem them necessary. It is thus plain that all physicians employ anesthetics in midwifery. It must be admitted that unwarranted hazards should not be incurred in the lying-in chamber, and yet in our use of anesthetics we are incurring unwarranted risks if we use some of those we have reviewed in this sketch.

We are now offered several anesthetics for which claims are advanced which will almost place these agents in the long hoped for class of ideal anesthetics, provided such claims can be established to the satisfaction of a majority of the profession. Nothing detrimental has so far been produced against them, while our older anesthetics can not evade that long line of death records. Hence, it seems to me, it is our duty to take up these newer agents and experiment with them in obstetrics, and report our results to the profession. It seems likewise plain that we are not warranted in the thoughtless use of the older anesthetics.

Uric Acid Diseases.

Of the 50 odd grains of uric acid produced in the body each twenty-four hours, the liver destroys 18 grains, the kidneys 22, the muscles 3 or 4, and the remainder, about 6 grains passes out of the body in the urine. If foods are habitually taken which contain a considerable quantity of uric acid, it is stored up in the tissues, the system being unable to destroy it. The result is hardening of the arteries, enlargement and hardening of the liver, premature old age, the formation of calculi in the kidneys or bladder, neuralgias, nervous exhaustion and probably a greater variety of symptoms and disorders than those resulting from any other single cause.

SIMPLE INFLUENZA.*

By Dr. W. O. Spencer, Winston-Salem, N. C.

It would seem that the handling of a subject so recently and universally dealt with, would be an exceedingly easy matter, but so diversified and extreme have been the opinions expressed concerning the derivation, definition, diagnosis and treatment of the disease under discussion, that I assure you only practical experience in the hand to hand fight that assumed such alarming proportions last fall could possibly capacitate one to promulgate an opinion upon this direful malady worth considering.

Simple influenza, to my mind, is best defined as an acute, self-limited air born infectious, (not contageous) fever, occurring in widely distributed epidemics, and characterized by catarrhal inflammation of the respiratory and gastro-intestinal mucosa (entering the system through the respitory tract and oral cavity) and by profound nervous disturbances and by extreme debility.

There are, of course, concomitant symptoms which have predominated during the various epidemics of the disease, a series of which have swept the world numbers of times which for rapidity of movement, extent of distribution, and number affected, rival all other epidemics. Medical historians have spoken of the utterances of Hippocrates and Livy as referring to an epidemic which is believed to be a form of the present-day influenza, showing that like "the poor" we have had it always with us. The army of Charlemange, victorious as to arms, was subjugated upon its return march to Italy and almost devastated by such an epidemic, and as far back as 1810 all Europe was visited by just such a plague —in fact, during the past 400 years there are said to have been about 70 epidemics of the disease.

The epidemic of 1889-90 was widespread, and following those of earlier days, came from east to west and starting in Russia, was known as Russian Influenza. The one of 1891 was less extensive but more fatal, in fact, since 1889 each winter has brought a recurrence of the dread disease. The many attempts made to classify the protean forms of the disease, have taken these forms: The nervous form, the catarrhal or respiratory form, and the gastro-intestinal form. In the epidemic of the late '80's and early '90's the nervous symptoms predominated, characterized by extreme pain and discomfort primarily, the gastro-intestinal and pulmonary involvement appearing secondarily; while during the late epidemic of last fall, and winter, the gastro-intestinal manifestations were undoubtedly primary, with pulmonary and nervous symptoms secondary, and in every incident due to toxemia, in the following manner; the toxins produced in the alimentary tract by a putrefying process, evidently due to some food conditions, was taken up through the lymph channels and conveyed through the thoracic lymph vessels and deposited in the chest cavity outside of the lung cells, rapidly filling the thoracic cavity with lymph serum which, by quick change, became a septicemia and by inter-thoracic pressure closing the lungs, the pressure being from outside the cells instead of within the lung cells. Post-mortum and laboratory findings were that this fluid or pus contained several varieties of pyogenic, as well as non-pyogenic organisms, viz.: staphilococci and dipli-cocci, also the influenza bacillus or the bacillus of Phieffer, for the want of a more applicable name, and communici-coli. All these were found in most cases, with the strepticocci in all cases predominating, (this gentleman doing the deadly work.) A vast number of post-mortums failed to find present in the recent epidemic the pneumococci which produces true pneumonia or pulmonitis, nor did the pathology of cartarrhal pulmonitis manifest itself throughout the epidemic of last fall and winter, but rather an inter-thoracic or extra-pulmonary septicaemia, with pyaemia. Death was produced by one of two ways, by asphyxiation caused by pressure closing the air cells, (as though a sponge were pressed flat), or by a general septicemia.

The treatment of simple influenza—and we all recognize the fact that all cases begin as simple influenza—is complete and absolute mercurial elimination through the alimentary tract, rest in bed, liquid diet until fever and general discomfort disappears, and appetite reappears. Keep eliminating without cessation until nothing remains in the alimentary tract to putrefy.

Pardon me, and I will relate my treatment as conducted through the last epidemic. To each patient at the onset, whose age ranged from ten to fifty years, were given six or more capsules of powders containing each, calomel, blue mass,

*Read before the Eighth District Medical Society, September 24, in Greensboro, N. C.

pulv, jalap and sodium bicarbonate, each five grains, with one active carthartic (little devil) in each cap; two of these were given the first and second night, followed by a saline, preferably castor oil, the next morning. After this, one cap or powder the two succeeding nights followed by saline each morning, provided however, symptoms were subsiding, it not, the dose of the first and second nights were repeated. So soon as the gastro-intestinal tract was cleared of all offending toxic material the temperature went down and stayed down, the general discomfort disappeared and appetite returned. Remember, as long as the symptoms do not clear up, be sure there still remains toxic absorption. During the recent epidemic anti-pyretic or analgesic drugs were indicated in only a few exceptional cases; in cases where they were necessary, codeine, aspirin and small doses of phenacetine were given a few times. Anti-pyretic drugs are positively dangerous, well do I remember in 1891 in reviewing the epidemic of that time Dr. DaCosta said, "The fatality was frightfully high, frightfully high," and that while he hated to say so, it was nevertheless true, that 90 per cent of the deaths were due to the ignorant and indiscriminate use of antipyrene and from lack of sufficient elimination." This was held to be true by such men as Wm. Pepper, Horatio C. Woods, Robert Bartholow, Austin Flynt and others, the greatest American clinicians of the past century. This holds true in all toxemia. This policy I followed during the recent epidemic and of the 870 patients treated from September 15th to April 15th, this treatment was adhered to minutely, and I have the pleasure of presenting to this society this afternoon a clean slate, with the record of not a single death. But I wish to impress upon you gentlemen that I did not in any way flirt with minute doses of mercury, or trust to salines, but dealt heroically with the most far-reaching, drastic eliminators. When fever subsides and appetite returns, generous and nourishing diet is given, in cases where anarexia continued, a bitter ferrigeneous tonic was given and rest in bed was insisted upon, until the sense of prostration was overcome. Usually a rapid convalesence followed.

The recent plague was indeed a most serious and extraordinary problem and one thrust upon us without warning, whose direful aspect was truly appalling, while tragic conclusions brought sorrow to thousands of homes and it behooves us to profit by the experience through which we have passed that we may be ready to meet the demand upon us should the necessity arise in the future.

COMPLICATIONS OF SPECIFIC URETHRITIS.*

By Raymond Thompson, M. D., of The Crowell Urological Clinic, Charlotte, N. C.

The most frequent complications of specific urethritis are those caused by the direct extension of the gonococcus infection to various parts of the genito-urinary system. Chief among these are:

1. Phymosis.
2. Lymphangitis.
3. Inguinal adenitis.
4. Folliculitis or peri-urethral abscess.
5. Epididymitis.
6. Prostatitis.
7. Vesiculitis.
8. Prostatic abscess.
9. Stricture.
10. Gonorrhoeal Cystitis.
11. Systemic infection.

Of all these complications gonorrhoeal prostatitis and vesiculitis are probably the most serious, not only because the prostate especially becomes a serious focus of infection, but also because these conditions may lead to sterility and often to sexual neurasthenia.

Whitney says that because of infection of the prostate, and the extension of the disease to seminal vesicles, a discharge is present which appears at the meatus. This may be always present or to be found only in the mornings, and may be either yellow (pus), whitish (mucous), or merely thin and watery. It may be continuous or intermittent. It is imperative in these cases of chronic urethral discharge that we find out whether gonococci are present and from what part of the urinary tract the discharge comes, in order to apply our treatment intelligently and successfully. Every physician has seen many such cases and has found them exceedingly difficult to treat. If we could only make these patients understand that they will be cured in ninety cases out of a hundred, if they will submit to prolonged and systematic treatment, a great deal of mental and physical suffering could be saved. In brief, these methods are massage of the prostate and stripping of the vessicles, full dilatation of the urethra by sounds and Kollman dilator followed in

*Read before the Mecklenburg County Medical Society, August, 1919.

both cases by suitable irrigations, and finally by direct applications through the urethroscope of suitable medicaments.

In some cases the gonococcus enters the blood stream, and causes pathological conditions in other parts of the body. The most frequent complication of this type is gonorrhoeal rheumatism, any joint may be affected, and more than one joint may be attacked. Those most frequently involved are the knee, ankle, wrist, finger-joints, toe-joints, elbow, shoulder, hip, sterno-clavicular, and temporo-maxillary joint. Synovitis and bursitis may also complicate gonorrhoea.

A general systemic gonoccus infection, some recent writers state is perhaps not so rare as has been supposed. "Gonorrhoea is generally considered, and in the majority of instances acts as a purely local disease." It is well that this is so, for if grave constitutional symptoms were the rule rather than the exception, it would be, considering its widespread incidence, one of the most destructive diseases that afflict mankind. Yet constitutional symptoms complicating a local urethritis are perhaps more frequent than is usually supposed; but as such they often pass unrecognized, or rather, are diagnosed as due to some other cause.

"The condition under which the infection becomes generalized are not well understood; nor do we know the frequency with which it occurs, except in gonorrhoeal rheumatism, which averages about ten percent in cases not properly treated. The gonococcus possesses such a wide biological variation and the blood serum of different individuals varies within such a wide range of susceptibility to its influence that it is impossible to state with any degree of accuracy how frequently the infection becomes generalized. Theoretically, it would seem to be of very frequent occurrence for the organisms to enter the blood stream; but it must be with almost equal frequency that they are destroyed before they can do any appreciable harm. The constitutional reactions therefore must take place only as the results of a particularly virulent strain of gonococci or where the patient's blood serum is of low bactericidal resistance.

A symptom complex that not infrequently occurs from the septic condition is endocarditis. It may be rapidly fatal. It not infrequently happens that the septicemia and the endocarditis are combined from the onset. In gonorrhoeal endocarditis the left heart is almost always affected, especially the aortic orifice. The symptoms are typical—prostration, fever, sweats, rapid and irregular pulse, murmurs, dyspnea. In the malignant type, ulceration and proliferative vegetations occur on the valves, which not infrequently are broken off and carried away by the circulation to form emboli. The clinical picture just described is not always present. In very many instances the endocordial inflammation comes on insidiously with cachexia and signs of cardiac irregularity. Such a case was recently referred to us for treatment. Case report:

Young man; age 23; single. General appearance, anxious expression, very nervous and anemic. Has lost considerably in weight and becomes exhausted on the least exertion.

Examination. Slight discharge. Smear gonococci positive. Urine cloudy. Albumen positive. Shreds and medium amount of pus. Casts negative. Prostate enlarged, secretion many pus cells. Leucocyte count 13,000. Wassermann negative. Heart, very marked valvular lesions present. Irregular and rapid heart beat.

Patient was put to bed and made an uneventful recovery.

The conclusion to be reached in this brief study of one of the phases of gonorrhoea is that it is the part of wisdom to watch carefully the development of any untoward febrile or cachetic symptoms occurring in the course of the disease, let it be acute or chronic. It is quite possible that they may be caused by the condition which was looked upon as purely local.

Insurance statistics show an increased mortality of 40 per cent above the normal death rate for the five years following an influenza epidemic. Chronic invalidism is a frequent sequel of this disease.

Elevation of tissue tone and of the defensive power of the body is the best prophylactic measure against the causative agents of influenza; and against other respiratory affections subsequent to the epidemic which, according to medical history, will prevail again this Fall and Winter.

Fellows' Syrup of the Hypophosphites, whose therapeutic value was confirmed once more during the war, is the ideal preparation during this critical period. It supplies the indispensable mineral salts required by the system, together, with the dynamic agents that accelerate convalescence, and restores strength and vigor.

MANAGEMENT OF WOUNDS.*

By Dr. S. P. Oast, 206 W. Freemason St., Norfolk, Va.

My subject is rather a large one, and I shall not attempt to go very largely into detail here with injuries to special regions. My intention is rather to speak of wounds in general and of those conditions in particular, which are most likely to confront us in civil practice.

I am aware that a subject has been chosen, which has been dealt with very exhaustively of late by a great host of writers, and I can not hope to present much that is new; yet I should like to hastily review some of its phases, and emphasize certain points, which have been impressed upon me by experience in hospitals on the front and in Paris.

In the summer of 1916, the opportunity was afforded me of assisting in the care of the wounded at the American Ambulance in Paris (later Red Cross No. 1 Neuilly S. Seine). It was during the first battle of th eSomme, and the hospital was filled with wounded, chiefly compound fractures.

I should think it would be quite difficult for one to appreciate the progress, that has been made in the treatment of war wounds, who cannot call to mind a picture of the wholesale treatment of wounds by the older methods, such as was presented in the base areas at this time.

At the time to which I have reference, (Summer of 1916), the knowledge of the newer ideas of treatment had not been very widely diffused, while being tried, were not influencing results on the whole to any noteworthy extent. It was then the practice on the front to do as little operating as possible usually incisions for the insertion of large tubes meant for drainage purposes, constituted the chief surgical principle carried out, aside from a considerable amount of amputating, and such obvious measures as the arrest of hemorrhage, (1 am at present speaking of wounds, taking compound fractures as a type, and have no reference to special injuries of viscera, brain, or joints.) There was no debridement, no attempt to carry our Carrels' ideas. After operation, the cases were done up in elaborate plaster casts, and evacuated to the bases by the earliest available transportation. No practical provisions were made for dressing these parts until the cast could be removed at the base, and as several days usually elapsed before this was done, (it took on an average of 3 to 4 days, because of the congestion, sometimes much longer), it was nothing uncommon to receive the patient in a very septic state; and upon removal of the cast, which was done routinely as soon as possible after arrival, to find the part bathed in pus, and the seat of one or more intractible pressure sores from the untoward effects of the cast.

In nearly all of these wounds, we found the provisions which had been made for drainage entirely inadequate; so under ether the lesions were explored and attempts were made at cutting away some of the devitalized tissue, where there was very gross evidence of it, (a sort of abortive debridement), but our efforts were pursued rather timidly, and our results influenced but little. The next step was to enlarge existing drainage avenues, make additional ones where indicated, and return the patient to the ward. The treatment of the wound (aside from appliances), then consisted of frequent irrigations with Dakins' fluid, but with large tubes, because no smaller ones were available, and when they were procured, we were still unaware of the indispensable importance of Carrels' method of application, and furthermore lacked some of the other essential details of the treatment necessary for success.

Even with these crude measures, there was apparent a marked saving of time in the cleaning up of wounds to the point of the healthy granulation; but in the light of what we have since learned, I believe this improvement was due in greater part to the principle of frequent irrigation, than to any remarkable penetrative or antiseptic virtues of the fluid itself. In other words, I think frequent irrigations with some of the older substances, for instance potassium permanganate solution, would have accomplished pretty much the same thing, not that I believe the antiseptic value of potassium permanganate to be as great as Dakins' fluid, but where irrigations are carried out in the presence of devitalized or sloughing masses, there is not sufficient penetrative power of either, or for that matter of any known substance to exert sufficient antiseptic action on the tissues which are the seat of the active infection to appreciably influence its progress; the beneficial effects for the most part being due to the mechanical removal of inflammatory products, simply by bathing. We

*Read before the Seaboard Medical Society at Norfolk, December 3, 1919.

made many attempts to suture these wounds after the acute infection had subsided and the stage of healthy granulation had been reached, but were rewarded with repeated failures, because of the lack of proper recognition of the importance of certain points, which I mean later to emphasize.

I have been at some little length to draw this picture of what existed before the advent of our present methods, in order that it may serve as a contrast.

When America entered the war, we were at once allowed to profit by the experience of the French and English surgeons, who working before us, had evolved and brought to the point of standardization, certain improved ways of dealing with wounds. Of pre-eminent importance under this head, is the principle brought out by the French, of debridement or unbridling, which has for its object the removal by surgical means of all devitalized tissue at the site of and resulting from the injury, thus freeing the healthy tissues, and enabling their own natural agencies for combatting infection to become effective. It is a generally conceded fact, that no matter how much care is exercised in trying to remove infecting micro-organisms from contaminated wounds, either by mechanical or chemical means, it is all but impossible to do so, and while debridement, if carried out properly, does remove the bulk of infecting agents along with grosser elements of contamination, it can not remove all, and its object is not that; but primarily to remove such of the tissues as are incapable of putting up a fight, and leaving the residual infective forces in direct contact with effectives of the natural defenses, that is with tissues which have not had their inherent combative forces attenuated or destroyed by injury. This is a sound surgical theory, that has now been given a thorough working out in the allied and in our own armies, and seems to me to be the one great lesson above all others, learned from the treatment of wounds, that is likely to exert the greatest influence in our care of civil or industrial injuries, with or without fractures.

After debriding (or removing surgically all devitalized tissues), it is practicable under certain conditions to at once suture wounds and confidently expect healing by primary union, even in wounds of the magnitude of compound fractures of the femur. The conditions are these viz: 1. The wound must be reached by the surgeon early and still in the stage of contamination, before gross evidences of infection have occurred. 2. Aseptic surgical conditions must prevail; and a formal operation must be undertaken, usually under a general anesthetic, with adequate assistance to insure thorough exposure of all parts of the wound by retraction. 3. There must not be too much loss of tissue substance including bone, and all contaminated areas must be accessible to the eye. 4. There must be complete arrest of hemorrhage. 5. The patient must not be transported for at least seven days after suture.

Closure of the wound at this stage is called primary suture, and for its success it is not necessary to introduce any foreign substance designed for assistance into the wound, though various agents, ("Bipp," Dichloramine "T," Flavine and others), are employed by some workers, without any important influence on the results.

If the conditions set forth above cannot be fulfilled, then it is better to carry out the debridement, pack lightly with paraffine gauze, and leave the suturing to be done later. The patient may now be transported, and if there is no suppuration on arrival at a place where proper conditions obtain, suture may be carried out at this time and again without the assistance of chemical substances, and primary union expected. This is termed delayed primary suture, and has been successfully done as late as seven days after the original operation, though two or three days is the usual margin allowed for safety.

Now if the wound is a suppurating one, from one reason or another, it is a different matter, and it is in this class of cases that antiseptic methods of treatment must be combined with surgical measures for the relief of the infection. Of the various substances, (Dakins', Flavine, Dichloramine "T," Hypertonic salt, and "Bipp"), which have been brought out during the war for the reduction of infection, accumulated evidence seems to point to Dakins' fluid applied by Carrels' technique, as the most generally valuable, though this is by no means conceded by all. At any rate it seems to be possible, in the hands of those familiar with applying them ,with any of the five substances I have mentioned, to so eliminate infection from a wound to a point where the same may be sutured successfully. From my own experience, I can vouch for the ability to accomplish this with the Carrel-Da-

kin, and with hypertonic salt solution; my knowledge of the others is from reports. I should like to say here, that it does not seem to be the antiseptic virtues of any of these various formulae which are alone responsible for their effectiveness but the recognition of certain principles which govern the method of their application. No doubt these new materials do possess the power of acting more powerfully than many of the older antiseptics, but it is certainly possible to clean up a wound and successfully suture it with the aid of the latter, if applied according to the newer ideas, the point to emphasize is the fact that, a wound may be successfully sutured in the granulating stage in the presence of infecting micro-organisms, if they be not too many nor too virulent. The number of bacteria left in a wound during suture, is not so important as the character of these organisms; the presence of the hemolytic streptococcus in any number, however small, is absolutely inimical to success, while the ordinary skin cocci may be left in considerable numbers, and not cause the wound to break down. So it is well to remember, that the mere retention of infecting agents does not necessarily spell failure, provided the chief aim of the operation is thoroughly carried out. Nor does the fact, that a wound originally attacked by a streptococcus, preclude its being sutured after treatment, because with the introduction of other micro-organisms into the area, which invariably takes place, the streptococcus disappears, leaving other pyogenic organisms responsible for the continued suppuration. I had a case of this sort once under what might be termed civil conditions. While at Camp Taylor a man was brought into the ward, who had received a blow on the thigh the previous day during a basketball game. The blow was followed almost immediately by swelling of the thigh, which increased perceptibly in a short time, and because of the concomitant pain and stiffness, forced him to withdraw from the game. He was admitted to the hospital on the day following the accident, quite prostrate, with a temperature of 103, and the diagnosis of suspected fracture of the femur. Examination by the X-ray showed no fracture, but there was considerable swelling and limitation of movement. His fever was very jumpy, and there appeared to be fluid at the site of the blow; so under gas, we incised through the fascia lata and evacuated a large quantity of pus, which on culture proved to be pure hemolytic streptococcus. The temperature was down the next day, and the infection in the wound subsided very rapidly under frequent irrigations and wet dressings of 5 per cent salt solution. Cultures at six and eight days were negative for hemolytic streptococcus, though other organisms were present. The boy was a very robust individual, and the wound presented such a healthy appearance grossly, that I thought it would be a good case to suture, which I did and it healed very proptly. What happened was this: a hematoma had developed from the blow, which had subsequently become infected by the hemolytic streptococcus, gaining access through the blood. This occurred at a time when we were having quite an epidemic of hemolytic streptococcus infections and a large percentage of the soldiers were carriers, and this boy was one, as was determined by throat culture. There is nothing so extraordinary about this case, I have mentioned it simply to show the application of one of the war's lessons to civil surgery. I believe that a saving of at least one month was made by suturing in this case. This sort of suture, that is, after suppuration has occurred, is called secondary suture.

In suturing a wound at any stage, either primary, delayed primary or secondary, in order to obtain a maximum of good results, one must adhere rigidly to rules of scrupulous surgical cleanliness; a knife and fork technique being practically essential to eliminate the chances of reintroducing infection, that is, keep your hands out of the wound.

In an experience of four months in evacuation hospitals, during the operations of the First Army at St. Mihiel and in the Argonne, I had the privilege of working with these new ideas, and though little opportunity was afforded us to follow our cases during days of stress, it was possible at other times to hold them long enough to witness the results which as compared with those of 1916 appeared little short of miraculous, the great lessening of important infections, and thus saving of life; the diminution of deformities; and the tremendous saving of time and suffering were all points, which stood out in marked contrast to what existed formerly. It was almost incredible, that extensive lesions with fractures, caused by shell fragments, could be sutured and primary union obtained, by such simple measures, yet this was the result in a large percentage of the cases attempted. There were many failures at first due to

inexperience in the selection of proper cases and failure to be thorough in our technique, but as time went on these mistakes were obviated and the percentage of the successes becam greater.

I know there are among you those who had considerably more experience in the later treatment of these conditions than I, and doubtless any who have can call to mind many cases operated at the front, which arrived at the base areas in a deplorable state of infection; this should not implicate the method. One must bear in mind the congestion and lack of facilities at the front for handling these cases promptly; and again there was every kind of surgical ability on exhibition in the army; there were many mistakes made, and as incredible as it may seem, they were not always made by junior officers.

I regret very much that my recent experience with regional injuries does not permit me to discuss them in detail, but perhaps I have been long enough already. Of injuries to the brain, I saw quite a few, but had not the opportunity of following them, and the same for joints. It did not take very long to follow the abdominal cases; these were the most distressing of all, with very few exceptions the cases of intestinal perforation died. They reached us on an average of eight to sixteen hours after injury, in profound shock as a rule, and if we waited for them to react, before operating, they either died of hemorrhage or developed peritonitis subsequently from the delay; if they were operated during shock, they succumbed; or if they were not operated at all, they died, and I believe this experience about agrees with others in like situation. No doubt, if they could have been reached by surgery earlier and not subjected to the trials of exposure and transportation, results would have been better; but the way has not yet been devised for eliminating these ever present factors during war.

Tachycardia and Intermittent Heart.—In tachycardia whether proceeding from exophthalmic goiter or from other causes, or in intermittent heart arising from the excessive use of tea, coffee, or alcohol, Cactina Pillets will be found of exceptional value. They afford a safe and reliable means of overcoming excitability and irregularity of the heart's action. One or two Pillets every two or three hours will exert the desired effect by improving the nutrition and tone of the cardiac mus-

CHARACTERISTIC PHENOMENA OF NERVOUS INVALIDISM.

By Dr. J. Madison Taylor, A. B., M. D., Professor of Physical Therapeutics and Dietetics, Medical Department, Temple University, Philadelphia, Pa.

The nervous invalid may be sketched or visualized as an individual who has lost control of certain essential powers or qualities of body and mind (the psychophysical makeup.) The elements of a nice equipoise in growth and mind forces are disturbed, in lesser or greater directions and degrees.

Some starting points for preliminary faults may exist in hereditary, inherited or in acquired characteristics of the mind, or body, or of both. Also these points of departure are aggravated by disturbing forces in the environment, by bad habits, by wrong training, especially by early psychic (mental and emotional), shocks or insults. The fundamental starting point of all psychopathies, bewilderments, anomalies of behavior, nervousness and the like, is the instinct of fear or one of its correlates, timidity, suspense, anxiety or worry.

These disturbing agencies may have arisen in primal trends (genetic), or in complexes induced by war's influences acting far up the ancestral line (phylogenetic scale). Some of them are also due to disease processes, or to effects following illnesses or hurts (traumata). Many result from emotional shocks exerted on over-delicate sensibilities, on bruised, wounded affections in childhood whereby yearnings are turned back on themselves, entangled and confused.

The product is an individual who has become a group unit or blend of anomalies,, abnormalities, queernesses, the salient feature of which is impairment of emotional control more or less pronounced and compelling. This loss of poise in the affective faculties serves as the origin of self distrust, loss of perspective and, in particular, of an impaired sense of proportion.

Congeries of limitations such as these exist in every instance. Some react better than others, are able to throw off the benumbing influences, to rise superior to insults and emerge from the ordeal little scathed. Those who remain, or seem to remain, normal, are fortunate enough to escape the more pronounced or disabling, or at least the more obvious effects.

The reason for this escape is largely attributable to a happy combination of in-

stinctive selection of doing the right and avoiding of the wrong acts, thoughts, feelings, impressions, briefly in exhibiting a good well poised behavior. The cure of many, indeed most of these distresses is by becoming aware of not only what they precisely are and signify, also by the selection and adoption (conscious or unconscious) of rational, simple and efficient means whereby one can be set right and kept right. To know our faults is always half the battle. It is of immeasurably greater importance to learn how these, or similar, errors can be overcome.

Hence the proposition of rescuing the nervous invalid resolves itself into an equation between how much the body is at fault, and how much more resolution can be trained on the quest for emancipation. Energy tides in a nervous invalid fluctuate abnormally from too high or too low. It is likewise a question how much one can contribute to one's own self regulation. The acme of normality is to possess an equipment of uniform capabilities for utilizing the energy tides of being able to put forth just so much effort as the occasion demands and no more.

Happily there are no insuperable difficulties in regaining control of energies, in transmitting or transforming them economically in order that existing needs shall be met. Help will almost always be required from outside. The real and permanent work however, must be done on the inside.

The energy content in the invalid is often spoken of as nearly exhausted. This is fundamentally erroneous. Body forces may indeed be so abused, perverted, the structures be so depressed from one source or another, that the force distributing facilities must be reorganized, also the push and pull equalized. There always remain grounds for unbounded expectations of betterment through improvements in the manner of using, conserving, and training what remains. This obtains right up to the portals of the grave. History is rich in instances of heroes who disregarded decreptitude of body and continued to shine, to enjoy life and to act as highest exemplars of moral force, till the spark of life flitted.

The vast majority of nervous invalids are fixtures, and remain where they stand, by reason of a deplorable contentment. They would resent such a statement but it is practically true. Every human being, with rare exceptions, prefers a life of peaceful routine. It is only the supermen and superwomen who repudiate this rating by an active, as well as wordy protest. To be sure rare creatures exist whom we call human dynamos. They ride full tilt on the top wave of an exuberant dynamic flood. Some become stars in the historic firmament; most of them go out and down with a splash.

The upper fifth of mankind supports, controls and directs the other four-fifths. The work of the world is done by the second, third, fourth and fifth of mankind. They toil, they spin, weave, dig and sweat with more or less contentment or futile revolt. Nervous invalidism arises chiefly through fears inducing misdirection of energy.

A normal well poised individual does simply what the day and the circumstances bring forth to be done. The dynamic index in him rises and stays on a level necessary to get through the day's duties. The forces and the mechanisms harmonize. In an ill-balanced person suppressed energies act and react hurtfully. Especially harmful are frantic or suppressed emotions, or when driven by a futile sense of duty; by a fear or anxiety which impels to inaction, or to wasteful action.

The disharmony of too much push (say 40 per cent) met inffectually by a little more pull back (say 45 per cent) plainly exhibits 85 per cent waste force. Here we have a double, a senseless expenditure of effort, a squandering of good capital, an indefensible prodigality. Hence arise counteractions, confusions, a getting nowhere, and always the makings of despair.

Right here lies the explanation of that horror due to fears of impending disaster, of indefinite yet compelling expectations of discreptitude or death, of vague but overmastering distresses. We do well to sympathize with the nervous invalid. Those advisers who have had abundant experience can readily allay the morbid horrors of emotional decreptitude. It must be done judiciously or a worse state ensues. Every time a psychopathic invalid seeks new advice, gives this or that authoritative person or method a trial and is disappointed, he becomes rooted more deeply in the mire of bewilderment. The thralldom of fear, of hope deferred, presses the petitioner down lower in the slough of despond.

Some relief comes through discharges of energy, through explosions of emotionalism. Enough letting go will often save reason or turn aside calamity from delicate vital structures or even preserve life.

The frenzied forces which should act through normal channels, should move to wholesome effort, would normally flower in to achievements, then surge back upon the over distressed (strained) self, inducing all sorts of anomalies in conduct. Substitution or change of direction is needed, not suppression.

Excess of optimism, of encouragement, even of sympathy, are all equally unwise. Over-much encouragement is like opening the flood gates of a dam all at once. Diversion into right channels saves the energy and restores the personality.

No wonder our nervous invalid so often becomes inexplicably exhausted. The unknowing or unsympathetic onlooker well assured that no such grave catastrophe will arise, yet are unaware of the significance of the turmoil, becomes exasperated, and this to the last degree exasperates the sufferer.

Among the greatest joys of existence is a serene conscious purpose and masterful control; the power of deliberately putting forth one's ever ample energies to good purpose. To be aware of liberal capabilities is a satisfaction, to feel them surging through one's parts, permeating one's distributing mechanisms, and to know they are contributory to one's own and to the common good, is to live abundantly and earn self-approval.

Now there is much in literature describing the natural history and phenomena of nervous invalidism, but less on how to meet and overcome the worst features and effects. It is true there are liberal supplies of special pleadings in the teachings of irresponsible hyper-optimists, especially those groups who sincerely aim at proselyting to some particular system of psychotherapy or philosophy or religion. Very effective too they are in many instances, but not in all nor in the case of the more valuable personalities. One who most readily yields to emotional push will the more readily reach poise just so soon as the feeling tone aroused subsides or becomes rightly directed. The real difficulty is in maintain what one attains in "keeping what you get."

The mind of man, and especially the mind of woman, is at present attuned to welcome and act upon liberally indicated systems of faith. These are compounded of units, many which are based upon myths, on artistic recastings of primitive religious traditions which are more or less consistent and suitable for the particular stage of development, peculiarities of environment, of need ,of opportunity and especially of the content of emotional stabilities.

Since the demand for salvation is so large, and the supply of really competent psychotherapeutists so small, it becomes a plain question of economics. We extol any bridge by which is offered good hope of crossing to safety. Is there not a better way to get the same results, both as to time and effort expended, and also as to thoroughness and permanence of cure?

I think so. Faith is of unquestionable efficacy and to impugn its potency, its all embracing sufficiency, is to verge upon the heretical and to invite damnation.

It should be no apostacy to advance the view that admitting all that can be claimed of Godly attributes as distinguishing and characterizing the great first cause, the central power which controls, regulates and sustains the stars in their courses and the gnat in the fields, none the less religions as formulated and codified have certain principles in common notwithstanding their endless heterogeniety of forms.

May it not be wiser for us to aim at a simplification of the elements which exist and are accepted, however obscured by feeling tones, and to differentiate these, to eliminate the crudities and strive to learn and use first principles, and also to reduce them to practical methods of rescue, of control, of cure?

and use first principles, and also to reduce them to practical methods of rescue, of control, of cure?

The medical department of Armour and Company has taken precautions among plant employes against a return of the "flu" epidemic in Chicago and other cities where the Armour plants are located.

All employes have been notified that without charge they may have the influenza vaccine administered according to the formula of Dr. E. C. Rosenow.

In addition to offering this vaccine free to employes, a general educational campaign along health lines and particularly with reference to the "flue" is being carried on among the workers in the plant.

Dr. Volney S. Cheney, medical director of Armour and Company, reports that the employes are taking an interest in the campaign and that as a result no serious recurrence of influenza is looked for among Armour workers.

THE EGOTISTICAL "I."

By George Ross, M. D. (U. Va.), C. S. A., Captain and Associate Medical Director Third Corps, A. N. Va., Lt. General A. P. Hill's Staff, Captain and Assistant Surgeon in Charge V. M. I. Cadet Battalion, Battle of New Market, May 15, 1864, Member of Medical Society of Virginia, Etc., Etc.

The subject of biography is of interest to all students seeking accuracy in the records of the deeds of man and justifies the adoption of the term "The Egotistical I" as the title for an informal talk that "may turn out a song or may turn out a sermon."

In old days, before the spirit of commercialism had enthralled the hearts of men and the "root of all evil" had thrust its poisonous tentacles into their hearts, there lived a poet philosopher, who held the ploy handles on the heather flecked fields of Highland Scotland, and pityingly, watched the wriggling worms and frightened mice upturned by his plow share.

In the quiet of his plodding life, his poetic fancy painted pictures, and he framed them in words of verse that never fails to thrill and inspire the hearts and minds of English speaking people when said or sung in their presence. I take the liberty of repeating one stanza from that matchless "Epistle to a Young Friend":

"To catch Dame Fortune Golden Smile,
Assidious wait upon her,
And gather gear by her wile,
That's justified by honor.

"Not for to hide it in a hedge,
Nor for the train attendant,
But, for the glorious privilege
Of being independent."

I wonder how many members of the Medical Society of Virginia are familiar with that letter and have been guided in their professional and business life by its words of wisdom.

Seemingly, I a mthe "Nestor" of this assemblage. I have "gathered gear by every wile that's justified by honor," but, not a penny on any other principle.

I have earned many dollars but, have never hoarded one for love of the dollar. I spent them lavishly—often foolishly and recklessly, but, I spent them as a Virginia gentleman of the old time sort. Selfishness has played no part in my life; but ambition has, and I have often sailed my craft in treacherous waters.

The calendar credits me with having passed the eighty-first milestone on my pilgrimage "west," and, the spirit of Burns might aptly whisper in my ear this comment:

Eighty-one years is long to have lived in
a world where transition is writ;
Eighty-one years is short to have lived
for eternity's span to grow fit.
Eighty-one years must a record unfold in
the life of the purest earth treads.
Shadowed too often by tears and regrets,
So enrapt is man's future in dreads.

I am the only living graduate of the Medical Class of the University of Virginia of 1861, and, one of the two surviving graduates of the Virginia Institute Class of 1859. I selected for my life work that noble profession on whose banner is richly emblazoned the golden device "Quae prousunt omnibus," which freely translated reads, "Serve mankind."

I studied medicine ten months in the office of a distinguished physician in Northampton County and entered the Medical Class of the University of Virginia in the fall of 1860. War's rumors rent this land. A spirit of patriotism fired the hearts of the student body.

A military company was organized. I was asked to be its captain and declined, but named the captain and was elected First Lieutenant of the company.

At this point, I digress a moment and assume the role of the "Lightning Conductor," boarding a rapid transit train for a review of some of the salient facts of my life for the next four years:

Virginia's Ordinance of Secession was passed the 17th day of April, 1851. Four infantry companies, organized as a battalion, boarded the evening train at Charlottesville for Harper's Ferry. It was composed of the "Monticello Guard," and the "Albemarle Rifles" of Charlottesville, and the "Sons of Liberty," and the "Southern Guard," University students. In the absence of the Captain, I commanded the Southern Guard. At Horper's Ferry, with my Orderly Sergeant and a file of three soldiers, I reconnoitered the Maryland Heights. Within the week, the long roll beat in the "wee sma hours ayant the two," and my men were called to their feet. I reconnoitered the roads on the Virginia Heights with my full company. In ten days, the University Companies were ordered home.

In June, the Board of Visitors of the University—Thos. Jefferson Randolph,

Rector, met, and immediately passed a resolution to establish a summer military school at the University for the teaching of young men the "A. B. C." of a soldier's life. I was summoned before the Board of Visitors and asked to establish the school as "Commandant." I filled "Dawson's Row" with cadets, divided them into two companies, appointed Robert E. Lee, Jr., Captain of "Company A" and John Maury—son of the world famous "Pathfinder of the Seas"—Captain of "Company B." Two licentiate University A. M. teachers assisted me—Thomas U. Dudley as Drill Master, and Launcelot M. Blackford as Keeper of the Records. Dudley died as the Episcopal Bishop of Kentucky, and, Blackford as the Headmaster of the Episcopal High School at Alexandria.

The "Battle of Bull Run," or "First Manassas" was fought on the 21st day of July, 1861. Many wounded were brought to Charlottesville, including some Federal wounded. The Rotunda and Chapel at the University were filled with them, and acted as Assistant Surgeon. On the porch in the rear of the Rotunda, I witnessed the only amputation at the hip joint that I ever saw, and looked at the operation over the shoulder of the first female physician that ever trod the soil of Virginia—Dr. Mary Walker. Dr. Edward Warren of North Carolina was the operator, and afterwards became famous as a soldier-surgeon on four continents, returning to America decorated by the Khedive of Egypt as "Warren Bey." He wrote a charming book detailing his varied experiences on those four continents.

At the close of the University Military School, I stood my examination before the Army Medical Board in Richmond, and was commissioned "Captain and Assistant Surgeon in the Provisional Army of Virginia," and assigned to the "Banner Hospital" on the corner of Nineteenth and Franklin streets then in charge of my old preceptor and uncle, Dr. William Alexander Thom.

He promoted my interest in every possible way, in the performance of many operations, and among them, the only amputation at the shoulder joint that I ever saw or performed. I learned a great deal in that hospital. Dr. James G. Reed, of Savannah, Ga., taught me that spirits of turpentine—internally administered and locally applied—was a specific for hospital gangrene, and I demonstrated this fact on a soldier medical student in that hospital. I learned too that, fame sometimes comes to men of humble birth and calling. A negro man was a floor scourer in my ward, and preached in the hospital yard to the soldiers and others. He died the most distinguished man with a black skin known to the scientific world as the Rev. Jno. Jasper, author of the sermon, "De sun do move."

In May, 1862, the "Seven Days Battles" were impending around Richmond. The Confederate Army was not fully equipped with hospitals. The Surgeon General issued a handsome order to me through Dr. Frank Sorrell, Inspector of Hospitals, detaching me from the Banner Hospital and ordering the immediate equipment of Crew's factory at 21st and Cary streets, for a hospital. I drafted prisoners from Libby Prison, secured negroes, and, proceeded with the work. I had accumulated about thirty ticks filled with straw, a hospital steward, etc., when the battle of "Seven Pines" was fought on the 31st day of May, 1868. A number of wounded were sent to my hospital, and I worked alone on them all that night. In the fall of 1862, I was detached from "General Hospital No. 21" and ordered to "Chimborazo Hospital"—the largest hospital in the Confederate service at any time—with a capacity of about four thousand beds, and, was made up of five divisions of wooden pavillions in charge of five head surgeons, with Dr. James B. McCaw of Richmond as executive officer. I learned much at that hospital, and I taught one thing that, turpentine, internally administered and locally applied, was a panacea for hospital gangrene. I demonstrated it on a fearful case involving the gluteal region, and at the request of the oldest surgeon on the hospital staff.

While on duty there in the month of February, the climax of my ambition was attained. I was married to the golden haired sweetheart of my boyhood, who —by the grace of God—is still Queen of my family circle and the joy of my heart.

In June, I was relieved from duty at that hospital, and ordered "to the front." I rode from Richmond to "Front Royal" on horseback and met the Army of Northern Virginia returning to Virginia after the Battle of Gettysburg. I met General A. P. Hill, whom I knew personally, with his staff on the road.

I reported to Dr. Guild, Medical Director on Gen. Robert E. Lee's staff, and was assigned in charge of the Reserve Hospital of the Third Army Corps at Culpepper Court House.

Some time afterwards, General A. P.

Hill made personal application to the Medical Director to order me to his headquarters, and, I was made "Associate Medical Director of the Third Corps" on his staff. In that capacity, I was in the Battle of "Bristow Station," and had charge of the train of ambulances transporting the wounded from that battlefield to the Orange and Alexandria Railroad en route to Richmond. The Army of Northern Virginia went into winterquarters south of the Rapidan River and in Orange County for the winter of '63-64.

While at Orange oCurt House, application was made by the Virginia authorities for my appointment to the position of Assistant Surgeon at the V. M. I. It was refused by the Surgeon General of the Army, and I visited personally the office of the Secretary of War, Mr. James A. Seddon, and secured from him acceptance of my resignation from my position on Gen. A. P. Hill's staff—my reasons for the change being considered imperative.

I entered upon my duties at the V. M. I. in February, and about the first of May, 1864, Gen. Franz Seigel, U. S. Army, advanced down the Valley of Virginia with a Federal force of about 8,000 men. Gen. John C. Breckinridge was directed to gather a force to resist his advance. The cadet battalion was ordered to report to him at Staunton, and obeyed. The Confederate forces marched up the Valley and joined issue with Seigel at "Newmarket on the 15th day of May, 1864" in what is now known as the famous battle of "Newmarket," in which the cadet battalion suffered heavily, losing about fifty-eight cadets, killed and wounded.

After the battle, they were ordered back to Lexington, via Richmond. General Seigel was deposed by the Federal authorities and the notorious David H. Hunter of Virginia appointed as his successor. He advanced to Lexington and shelled the town from the Cameron Mills on the north of the river, sending a number of missiles into the V. I. Barracks, and later ordering the burning of the barracks. The battalion was withdrawn under the command of Colonel Scott Shipp to Balcony Falls, remained a few days there, then went to Lynchburg where a sharp encounter took place between the Federal and Confederate armies. The cadets were not in the engagement.

The barracks having been burned by General Hunter, the battalion was ordered to Richmond and quartered in "Camp Lee" for a month, then assigned to the eastern defenses of Richmond on Pe's farm for four months, and then ordered to the "City Almhouse" into winter quarters in January '65. While in winter quarters, they were participants in the defense of Richmond against Federal raiding parties. On the day of the evacuation of Richmond —the 3rd day of April, 1865, the battalion was put on two freight boats at 8th and Canal streets, and, sent up the canal. The boat on which I was sprung a leak and had to be abandoned. The battalion ceased to be an organized force. I walked up the toe-path to Lynchburg, caught a train to Lexington, secured my horse and together with Capt. I. C. Whitwell, Commissary Officer of the cadet battalion, I rode back to Richmond hearing from a Confederate soldier on the road that President Lincoln had been assassinated by "Edwin Booth."

Before leaving Lexington, I secured from Captain Chas. D. Davidson, of General R. E. Colston's staff a parole, they having just returned from the surrender of the Confederate Army at Appomattox.

On reaching Richmond, I was short-sighted enough to abandon my profession for the time, engaging in work about which I knew nothing. I had no money and a wife to support, and, was in rather a desperate plight. An uncle had some Virginia bank notes and offered to go into partnership with me in a business enterprise on a fifty-fifty basis. I accepted the offer, bought a Government ambulance, two Government horses, and a load of groceries, sugar, coffee, tea, felt hats, etc., and traveled through King William County on a huckstering expedition. I had never bought or sold anything in my life before and of course, my trip was a failure. Next, I bought more mules and horses and started with my caravan to Culpepper County to farm my uncle's plantation, he having offered me all I could make out of it.

I sent my wife to her grandmother's at Culpepper Court House and started with my caravan from Richmond. Two of my animals died of "glanders" before I got to my destination. I worked all the summer, drove a mower, slept on the hay, lived on ash cake, Porto Rico molasses and fat bacon. I only accumulated a large fund of disgust, and the fall revealed the fact to me that as a farmer, I was a failure.

I determined then to return to Richmond and resume my profession. I borrowed $50.00 from my wife's uncle and paid the freight on the family—wife, baby,

wet nurse and her baby, and stored them in a second story back room and porch, at 701 East Franklin street.

I rented a small office for $12.50 per month at Eighteenth and Main streets, put in a little pine table, two wooden chairs and had two bricks on which to kindle a fire, then, bought a load of wood on Eighteenth street between Main and Cary, carried it in my town arms up an outside stairway and piled it in the corner of that little room, paying my last $3.75 for that wood. I did not have a cen in pocket book or bank, but I had in my heart the spirit to say:

I am just a young doctor plodding along,
Battling for bread and for meat;
Fixed in the purpose to hold up my head
Wherever men see me on street.

I am trained in the school of sacrifice
And have stood for my country's cause;
Now, proudly fly the veteran's flag
In one of the world's great wars.

I have known the want of bread and meat,
With no place to rest my bones;
My fellow soldiers felt tthe same want
And, God pitying, heard their moans.

I'll stand to my colors tried son of the South,
Though empty both larder and hands;
Trust the God of my fathers to shield and provide
And, patiently wait His commands.

My first patient was a negro "G. U." subject. He paid me two bug-laden United States Postal currency 50 cent notes, declaring it to be "every cent he got in Gawd's world." I said, "Not the last cent for me that any man has got! You take one-half and I will take the other half," (thus establishing a precedent for "dividing fees.")

I was invited to become house physician to the Ballard House, conditioned on my renting a basement office at $40.00 per month. I accepted the conditions and moved there, paying my rent from the patronage of the hotel.

I then moved to 701 East Franklin street in the front basement room, and shall always have a sentimental attachment for the spot on which that house stood, because from that house my father was buried, my sister was married, General Fitzhugh Lee was made Governor of Virginia and, with his wife, was guest for a month. In it my youngest daughter was born and, while in it, I was appointed the Chief Surgeon of the Richmond & Danville Railroad Company, and organized the Surgical Department of that road, occupying that position for ten years; and too while there, was appointed "Adjunct Professor in the Medical College of Virginia."

I had walked for nearly three years doing my practice from that house and prospered very much. I bought the house finally for $9,000.00, and was able to indulge my family with a carriage and horses. I lived theer for twenty-two years, when my ambition reached out for bigger things, and I sold the house for $8,000.00 (still playing the losing game.

I then bought 101 East Franklin street, where I lived for twenty-four years and prospered very materially. I added horses to my stables and provided all the known vehicles incident to that period of my life, promotive of the happiness of my family and friends. Honors unexpected and unsought came to me. I was one of the ten founders of the "University College of Medicine" and filled the chair of "Obstetrics." There I was made "President of the International Association of aRilway Surgeons" and presided at the only session of that body ever held beyond our own boundaries, in Toronto, Canada, in 1898, I was appointed by the Canadian authorities as representative of the "American Medical profession to the British Medical Society in the City of Montreal, Canada, in 1899—the only gathering of that body of scientists ever held beyond the British Isles. In that house, too, my daughter was happily married. A reduced family circle opened the doors for another move and so I sold that house and bought 903 Park Avenue, presenting the deed to that property as a golden wedding gift to my wife.

Many years have glided by. I have been professor, surgeon, gynecologist, oculist, general practitioner and family physician. Many changes force themselves before my vision. The life of a doctor seems like the reading of a chart in a case of a typhoid fever patient. He zigzags up and down to the climax of his professional career; then, zigzags down and up to the plane of his beginning. He awakes to the fact that changing conditions in professional life reveal the sad picture, pathetically expressed in the lines:

Alas for that old family doctor,
A memory now of the past;

Valueless all of his experiences,
Gathered and garnered his last.

Dauntlessly dared he his duty,
Through forests and fields and fair valleys;
Patiently toiled he and waited,
On both the lone streets and dark alleys.

Aye, waited and waived all the dangers,
That threatened his body and soul;
Single handed he stood undefended
And battled disease to control.

Heavy hearted, oft mind unillumined,
He struggled with questions of doubt;
No brother was near by with counsel,
While he pondered how best disease rout.

Now, "tempora mutanta" is written,
In science and sadly on hearts;
For the name of the "family doctor"
Is blotted from family charts.

He is standing in the shadow of a never ending night
Shrinking, trembling, praying lest the blessedness of light,
Should forever be denied him; lest the future—close at hand,
Be veiled in midnight darkness; and he piteously stands,
Appealingly, asking, "Can this be my Father's hands?"

Should bitter plaint find utterance? He has journeyed long in life,
Past four score one has struggled through days of peace and strife;
God's canopy has covered him through all the years now past,
Should he rebel when troubles come midst pleasures at the last?

Forbid it, Father Merciful! Thou solace in all sorrow,
Let uncomplaining patience mark his waiting of Thy 'morrow.

Amen.

The "Egotistical 'I'" has spoken. He has paid his tribute to the Medical Society of Virginia in their semi-centennial session in the gift of himself as an object lesson. And now, if you will pardon his imposing a moment longer, he will resume his chair of professor, and, ask the younger members of the profession a few questions.

Do you realize that no chance, no destiny, no fate can circumvent or hinder or control the firm resolve of a determined soul? That gifts count for nothing, that will alone is great, that all things fall down to it soon or late?

That the fool 'tis prates of luck, that fortunate is he whose earnest purpose never swerves; whose slightest action or inaction, serves the one great aim?

That a pure character and lofty purpose are the bases of all things worth counting in man. That they are the only qualities governing human action giving promise of enduring rewards in this life, and, the only personal credentials one may venture to present in the Court of Final Assize?

If these be the things toward which you aspire; if, to this declaration of a creed, you stand ready to revertebrate and send back the echo "Credo!" then I make bold to affirm that, when the revolutions of the wheels of time shall confront you with the consciousness of lengthening shadows and the setting sun, gathering the gorgeous eevning clouds, frames them into glorious pictures athwart the western skies, men will cry out, "Behold, a man!"

A man? Aye ,lion hearted,
Daring all a man doth dare;
A pure man, silhouetted,
Let all the world declare.

Then buckle tight your armor,
Quit ye like men;
Let duty be your watchword,
The guerdon's only then.

"Sterw good deeds through the world as though sent,
As God sows stars in the firmament."

Jacobi Memorial Plans Expanded.—A few weeks ago it was announced that plans were being developed for the erection of a hospital in the Washington Heights section of New York as a memorial to the late Dr. Abraham Jacobi. This plan has been altered somewhat and it is now announced that appeals for contributions to a $1,000,000 fund will be made to the 140,000 physicians in the United States by the executive committee from its headquarters at 3785 Broadway. It is now planned to make the memorial for children only, to erect an annex to the Jewish Memorial Hospital, and to endow as many free beds in the hospital as possible as a tribute to Dr. Jacobi's work among the poor of this city.—Medical Record.

THE EVIL RESULTS OF AN ENLARGED PROSTATE GLAND.*

By Dr. R. L. McMurran, Portsmouth, Va.

It is with much reluctance that I attempt to address a body of men learned in the medical profession upon a subject which may, perhaps, not be as interesting as many others, yet it is of paramount importance for the benefit of mankind, and I am constrained to present my views as obtained by actual experience and investigation in my profession; and, in discussing this subject, however feeble, I hope in a small way to help my fellow-man to see the great danger of neglecting to conserve the most vital organ—the prostate gland—which the Creator intended that we should keep clean and pure, but it is one part of the body that man unwittingly abuses. Therefore, you will pardon me for describing and refreshing your memory of the minute anatomy of the prostate gland, and we should teach our patients more along this line, keeping pace with the government's efforts to stamp out venereal disease, in order to perfect a better species of the human race. The eradication of these diseases may mean practically the creation of a new race with enlarged intellect, strength and vitality.

Gray's anatomy simply describes the prostate gland as a gland surrounding the neck of the bladder and resting on the rectum, and about the size of a horse-chestnut, with two seminal vesicle ducts, which open into ejaculatory ducts on its floor, while other anatomists going more into details describe it as musculo-glandular body with close anatomical association with the rectum, supported by the pubo-prostate ligaments derived from the anterior vesical ligaments, the posterior layer of the triangular ligaments and the lavator and muscle, having two distinct lateral lobes or halves and some anatomists state it has a medium lobe, which I have not found in my experience ,as the medium lobe has always been an enlargement caused by disease. The urethra tunnels the prostate and the prostatic and ejaculatory ducts enter it on the floor. A longitudinal highly sensitive structure is here situated, which has erectile tissue and is known as the veru-montanum, and is supposed to be the seat of sexual sensibility, on each side of this elevation there are fifteen or twenty ducts entering into it, which open at the anterior of the veru-montanum, and just in front of this elevation anteriorly there is a depression known as the uterus masculinus, or prostatic uricle so called from its homology to the uterus. The urethra generally transverses the center of the gland, but it has been known to be at the side of it. The size of the gland, about 1 1-4 inches in length, is of great importance as a means of diagnosis in an examination to determine the presence of disease. In a child it has a sharp curve. The ejaculatory ducts and the mouths of the prostatic follicles and seminal vesicles are closely associated with the prostate and its functions. The muscular tissues are of special importance in urination on account of their circular shape, which in my judgment help to control both the posterior and anterior sphincters. The prostatic tissue is richly supplied with nerves and blood-vessels, being one of the most vascular glands in the body. The arterial supply is derived fro mthe internal pubic and the vesicle veins from an elaborate and intricate plexus formed by the internal iliac vein which is in close relation with the arteries and veins of the rectum. The nerve supply is derived mainly from the hypogastric plexus. This gland is most liberally supplied with filaments from the sympathetic system, which supplies both the prostate and rectum, and this explains disturbance both mental and physical, which frequently occurs as the result of prostatic disease.

Mental—Neurasthenia, Hypochondriasis, Psychopathologic events.

Physical—Retention of urine—physiology and results; Impotence—physiology and prognosis; Cancer—differentiated.

A probable explanation of the mental changes follows:

(a) Irritation of the veru montanum; there is abnormal desire with unsatisfactory results. Sexual abuse caused by masturbation and abnormal ejaculation, which produces prostatic pressure.

(b) Increased desire for sexual excitement unsatiable on account of the mechanical interference with the pudic artery precluding filling of the corpus cavernosum and the corpus spongiosum, therefore preventing erection.

(c) Constant elaboration of insatiated desire caused cerebral hyperemia, which eventually admits of exudation and effusion which in turn by pressure limit cell nutrition and reconstruction and results in cell degradation.

(d) A degenerated cell cannot function normally, thoughts emenating from

*Read before the Seaboard Medical Association December 3, 1919.

degenerate cells cannot but be degenerate.

(e) A chain of degenerate thought waves tend to mental instability with very marked reflex disturbances, due to the sympathetic filaments and other nerve centers in the spinal plexus carrying the disorder to the sensorium, producing hypereamia, pressure, altered cell function, followed by different forms of aberration —Neurasthenia, hypochondriasis, neurosis, depression, acute mania, or other physco-neuroses.

(f) About forty years of age or ten years before the effects of an enlarged prostate assert itself in a retention of urine a gradual reduction of sexaul power terminating in impotence is to be noted, as the enlargement increased pressure occurs on the branch of the pudic artrey which forms the main supply of the penis as above described. Between fifty and sixty, besides the conditions mentioned above there is found a gradual hardening of the arterial supply, which further destroys the functionating power of the gland.

In chronic types the enlargement presses the compressor urinary muscle upward, interferes with its functions and causes the urethra to be higher than normal, the detrusor becomes first atonic and later paralyzed and is unable to do its work, allowing the accumulation of the urine to take place in the fundus of the bladder, inducing it to sag and admits of ammoniacal decomposition, which irritates and later denudes the mucosa, thereby paving the way for a purulent cystitis.

This acute condition produces a very hyper-sensitive urethra, which very frequently results in priapism. These conditions can be corrected by proper treatment. The most common cause of sterility in men is due in my judgment to the closing of the fissure in the tract of the veru-montanum and the slow absorption of the infection through the ejaculatory ducts into the testicles, causing permanent adhesions to take place in the epididymis.

The treatment can be either curative or at least palliative. The first duty of the physician when a patient comes to him for treatment, and complaining of these symptoms is to make a thorough examination of his rectum to ascertain if there is any obstruction or enlargement of the gland, and, if there is, remove all piles by the Quinine-Urea method, and see that the other foreign growths are removed. Then with a gloved forefinger examine the gland, and if symmetrical enlargement is found gently massage both lobes of the prostate for about five minutes twice a week—in this way the absorption of the poison is prevented in the gland. If it is found that massage obtains no results, then use the slow Sinusoidal current, placing the negative pole over the twelve dorsal vertebra and the positive pole directly over the gland, using the current for about ten minutes twice a week, 30 voltage. Internally give some sedative to relieve the highly sensitive mucosa of the bladder. I do not think the catheter should be used often if it can be avoided as it increases the danger of purulent cystitis every time it is used. I have made no effort to discuss the surgical treatment or the acute infectious type of prostatis commonly caused by gonnocci. In this paper, impotence, sterility, and retention of urine is noted. The impotence from pressure on the arterial supply of the penis, the sterility from adhesions of the fissures of the verumontanum and of epididymis, and the retention of the urine from partial destruction of the nerve force in the compressor urinarius, detrusor levator ani muscles.

Practice and Teaching of Orthopedic Surgery.—Stiles, in The London Lancet, speaking on this matter at the recent clinical meeting of the British Medical Association, said that all surgery was more or less reconstructive. The difference between reconstruction in orthopedics and in general surgery was that in the latter, and especially in abdominal cases, it concerned involuntary muscle. He hoped that orthopedics would be made a part of general surgery, that the practice and teaching would be reorganized in general hospitals, and that in them there would be team work. Progress had been made in orthopedic surgery because of team work by young men with receptive minds, new problems to face and imagination. The writer hoped that other large schools would follow Edinburgh and institute lectureships in orthopedic surgery. Referring to flail joints, he said that if heavy massage did not light up inflammation about the joint it was safe to operate. The author made a practice of putting the limb up in plaster on the operating table in the position which he wished it to occupy. A flare-up did not matter if ankylosis was the objective.

A FEW EVERYDAY USES FOR PHYSIOTHERAPY.*

By Dr. Lockburn B. Scott, 338 Boush St., Norfolk, Va.

Within the limits of available time no exhaustive presentation of so broad a subject can be made. Attention will, therefore, be confined to a few of the more frequently met indications for physical therapy, of which there are many useful forms, but, fo rthe same reason, for the present, consideration will be chiefly limited to some of those most constantly in use, such as Hydrotherapy, by which we mean the use of water in various forms both externally and internally in the treatment of disease and the preservation of health; Electrotherapy, involving the use of the various electric modalities for the same purpose; Phototherapy, referring to the use of light for therapeutic purposes; Thermotherapy is a similar application of heat. For most practical purposes these three, electricity, light and heat, may be considered together as interdependent, as in ordinary forms of treatment they are obtained from the same source and are combined in their application, though light and heat are often used separately. For the most part, however, they are at least closely associated with other methods, chiefly electric. One other mode of treatment will be considered here Massotherapy or Massage, which is the treatment of the various parts of the body by rubbing, kneading, rolling, stroking, and other manipulations, chiefly by hand, sometimes by instruments. But please note most emphatically that Massage and Rubbing are NOT synonyms. Rubbing is only a very minor part of Massage, which consists much more in kneading and rolling the body tissues than in rubbing.

With these elemental ideas recalled to attention, we may refer to a few of the many conditions daily met in practice in which some or other of these measures are indicated and prove helpful when properly applied, with emphasis on 'properly.'

Perhaps with most of us the first to come into thought is Rheumatism. A discussion on the etiology or pathology of rheumatic conditions would not be in place here. Neither is it necessary to consider the differential diagnosis of the various types of rheumatism, since the physical treatment of the different forms is much alike.

Increased elimination and improved circulatory conditions are the key notes to the rational therapy of these rheumatic ailments, and these are the basal ideas in physical therapy. If you will pardon the introduction of the personal reference, a brief outline of my own method of treating the average case of rheumatism may serve to give a clearer idea of what is meant than a more indirectly worded sttaement. Of course it is understood that many modifications of methods are used to fit differing conditions, but with an average case I first have the patient disrobe, then introduce him to the electric light cabinet bath, where every part of the body is directly exposed to the action of light and heat coming from some 45 or 50 lamps of 40 to 60 watt capacity mirrored back and forth by a hexagon of mirrors lining the cabinet. While both light and heat are here generated, light is the predominating and much more important factor. In a few minutes a profuse perspiration is induced, much more effectively and with less debilitating effect than by the now obsolescent Turkish Bath.

Then follows what may be described as a hot water massage, in which a stream of water as hot as can be tolerated, say from 110 to 118 degrees Farenheit, is projected under pressure against the body with special attention to those parts which are painful. To one who has not experienced the relief from pain which this gives no verbal explanation of its pleasurable action will convey an adequate idea of the benefit so derived. Next will usually come the application of some one or other of the electric modalities, the currents most commonly used being the Galvanic; Sinusoidal, replacing the harsher Faradic; and the High Frequencies. These may be used singly or in combination as the special case seems to indicate. Perhaps one of the most frequent mistakes in giving electrical treatments is the use of too strong currents, the idea seeming to prevail that if a little is good more is better. Just apply that to strychnine or nitroglycerine. Electric applications for therapeutic effects should fall short of being painful, and because this rule has been so often brutally disregarded many patients are deterred through fear from seeking helpful aid.

The treatment is then completed by a hand massage of either a part or the whole of the body as circumstances direct. The entire process occupies about an hour

*Read before the recent meeting of the Seaboard Medical Association of Virginia and North Carolina, December 2-4, 1919.

of activity. Comparatively few cases of rheumatism fail to respond favorably in greater or less degree to such treatment when repeated sufficiently often—though, like all other methods, there are cases which refuse to improve, and some get worse, though that result is very infrequent. Does some one ask about internal remedies? The majority of my patients are referred by brother physicians, and I like to have them keep in touch with their patients by giving such prescriptions as seem to them likely to help. In my own patients I sometimes prescribe for special indications, but for the most part rely on the physical methods for the main effect.

Neuritis, Neuralgia, and Neurasthenia are a closely related trinity to which the medicine man, myself included, would gladly give a wide berth; yet they are probably the next most frequently referred troubles. Treatment of these is very much on the same general lines, happily the results here are often the most gratifying.

"Reconstruction," is a term which has been much in use with the profession of late, and it offers a most hopeful field for the use of physiotherapy. Shell shock and similar conditions were practically all treated by these methods in all the allied armies when available and large numbers of men having serious disabilities following wounds are given the benefit of physical treatment to restore impaired function.

But it is not alone in military practice that this form of treatment is found useful. There are many surgical conditions that benefit greatly by this method of practice. Fractures in or near joints often result in subsequent impairment of function; many times these disabilities disappear in time by the gradual processes of nature; but the time can be shortened and the restoration be effected much more promptly, so permitting return to the normal methods of life weeks or months sooner than if left to nature. Many times serious and persisting disabilities may be averted or greatly minimized by suitable physical treatment. A deformity avoided is to be preferred to one requiring subsequent operative correction.

In the case of ordinary sprains the old custom of immobilizing the structures around joints is very poor practice as compared with the immediate application of indicated physical manipulative measures such as heat, electricity and massage, which often enable the joint to be continued in active use. Just one illustration.

On one occasion a man was carried into the office after a fall in which the knee joint was severely sprained and the patellar tendon partially ruptured. After I had worked with him for a couple of hours he walked out of the office unassisted, and thereafter daily walked several blocks for treatment, and in ten days was entirely well. His actual loss of time from work was only the portion of the afternoon of the day of injury. Under the immobilization plan he would have been laid aside practically for some weeks.

Patients in need of surgical operation but are in a run-down condition can frequently be toned up and put in good shape more quickly and effectively than by the usual medicinal tonics, though these may be used also if desired. Then again, subsequent to operation very often a series of tonic treatments will greatly hasten full recovery.

Most of the Psychoses are benefitted by the use of suitable physical measures; especially is this true of early cases, particularly if the form of treatment is arranged to create a strong mental impression. This in no small degree explains the wonderful successes claimed by those of other cults than ours who claim to cure all the ills to which frail flesh is heir by adjustments of the vertebrae, or other equally scientific measures.

Many which are sometimes described as "border line" cases where it is not always easy to distinguish between the mental and the physical ailments, can be much helped, and this not alone by the psychic effects, but also by the unquestionably rational treatment which acts both on the physical and mental natures.

Neurasthenics are usually decidedly benefitted, though not always entirely cured of their "nervousness." They can often be helped to a new viewpoint, which is an advantage well worth the effort.

"Nervous Indigestion,"—will some one please define it?—is very often put to rest and normal functions restored, just as is the case with a whole long train of wretched symptoms not altogether inaptly classed by the laity as "a fit of nerves."

While in many of those mentioned suggestive therapeutics play a not unimportant part, it is none the less a fact that organic nerve lesions short of actual destruction are most effectively restored by electro- and massotherapeutic treatment.

Functional kidney troubles; "sluggish liver," if there be such a thing; indigestion, not the result of organic lesions; con-

stipation; and other conditions in which increased elimination is indicated, are more or less amenable to physical measures.

Gynecology offers a fruitful field for conservative therapy which deserves more consideration than is often accorded. Pelvic congestion and inflammation may often be relieved by sitz baths and various electric modalities, particularly by Galvanism, Diathermy, and the vacuum violet ray. These intelligently used will often avert the need for operative interference, especially if used in the earlier stages, though many times unexpected relief is obtained in cases of long standing.

For cardiac insufficiency, including disease of the myocardium, valvular lesions, and nervous and functional disorders of the heart, the Nauheim bath will often work wonders. Nor does one have to go to Germany, nor even to the larger sanitaria to get it, any progressive hydrotherapist can administer it. Briefly stated, its effects are brought about chiefly through the action of the chemicals used upon the cutaneous nerve endings, provoking reflex effects upon and through the central nervous system, increasing the capacity and activity of the peripheral blood vessels, thereby relieving the over burdened heart, lessening the congestion of the viscera generally, bringing about a better distribution of the blood stream with consequent better nutrition of all body tissues.

Since this form of bath is given at neutral temperatures, the depression or over stimulation that might arise from either hot or cold baths is avoided, consequently there is no antagonism to the benefits brought about by the reflexes excited by the chemical action, these thus become permanent.

Probably both on account of limitation of time, and more lest by adding to the list it may be thought that like many quack remedies too much is claimed, it may be well to stop here. If some of you will faithfully try out a few of the indications mentioned you will then be encouraged to go on; for there are really many other conditions, enough to furnish material for many papers such as this. And why should it not be so? What is the aim of all medicine and surgery? Are they not to aid Nature in her struggle against adverse conditions?

When the surgeon operates is it not that he may so far as possible restore injured or diseased organisms to more normal condition? It is not the knife that cures. If cure comes it is because the knife has removed offending tissues, or has opened the way for restoration of suspended function. Surgery is simply and always an effort to aid Nature.

So with the internist—his pills and potions must serve the same purpose if they are to produce the desired result. Strychnine, mercury, iron, sodium and all the rest do not cure, they but open the way for Mother Nature, who alone can heal. So with physiotherapy. It seeks only to aid natural processes and so restore lost equilibrium. Practically all the methods employed have one or other or both of two objects directly in view. First, elimination, directly by the increased activity of the skin, but also very distinctly by stimulation of the other emunctories, the bowels, kidneys and lungs. How many forms of disease do we treat where this is not a result to be desired?

Second, the effort is to stimulate in large degree the movements of the blood stream throughout the entire body. This is the key note of physiotherapy; the action of water, light, heat, electricity and massage all tend to quicken and strengthen the circulation of a purer, consequently more nutritious, blood stream; this, of course, being beneficial in any and every form of ailment.

With these two effects constantly brought into activity, one can readily see that the benefit of such treatment is almost coextensive with conditions of disease in which they can be applied; so that one is justified in making wide claims for curative effects, since they are based on such substantial physiological foundations.

To a much greater extent than most of us realize, some one or other of the physiotherapeutic methods can be made to apply helpfully in the majority of illnesses. Who of us does not make use of hot water bottles or cold compresses and ice bags? These are but adaptations to local conditions of the principles underlying the more generalized baths. Who does not advise convalescents to get into the sunshine? Nature's phototherapy, which we seek to imitate in the treatment room using "bottled sunshine," the nearest approach to the great source of light and heat. Who does not recommend exercise to one who desires to gain strength? The masseur gives needed exercise to muscles that lack tone without calling upon the patient for exertion which he may not have sertngth to use. By manipulation of

the body tissues he accelerates the venous flow, overcoming stasis, so facilitating arterial action, stimulating metabolism in a perfectly logical and physiological way, thereby inducing better health in almost any pathological condition.

The wise physiotherapist makes no claim to magic effects, does not promise the impossible; recognizes the limitations necessarily imposed by attendant circumstances; yet violates no requirement of either truth or modesty when he asserts his ability to aid in the improvement of a wide range of diseased conditions; relieve a vast number of pains and much bodily distress; supplement the efforts of surgeon and internist; and in not a few instances accomplish what their unaided efforts will not do. On the other hand, the surgeon or internist who desires the best results for his patients will often find it to his own advantage as well as the benefit of his patient to call in the aid of the ethical physiotherapist and secure his help in the restoration to health of many sufferers who otherwise may be subjected to needlessly prolonged and often painful convalescence, or in some cases life-long disability, which under other methods might be averted.

Just as the internist turns to the surgeon, or the surgeon to the internist, and both to the roentgenologist, so should we all consider and avail of the advantages offered by the physiotherapist who represents a branch of the profession which has been much too long regarded as a luxury or a fad, rather than what it is in the hands of honest and qualified exponents, a scientific and exceedingly useful application of physiological methods to ameliorate the lot of suffering humanity.

Restorvin. No physician can fail to recognize in this combination the **Ideal Tonic** and **Reconstructive.** Each ingredient is the type of its class. **Phosphoric Acid**—Tissue Builder and Nerve Restorer. **Hydrastis**—Tonic to Mucous Membranes. **Albuminate of Iron**—Regenerator of Red Blood Cell. **Calisaya**—Antimalarial, Tonic and Febrifuge. **Glycerine**—Antiferment and Emmollient. **Sherry Wine**—Stimulant and Tonic. The whole combined to form a delicate, appetizing cordial, which agrees with even the weakest and most delicate stomachs.

SURGERY OF THE PERINEUM.*

By C. J. Andrews, M. D., F. A. C. S., Norfolk, Va.

Injuries of the perineum and their successful repair, constitute one of the real problems of obstetrics or gynecology. Speaking broadly, it can be safely said that this problem has not so far, been successfully solved. It seems that a large proportion of women who have borne children, suffer to some extent, from the results of perineal injury during labor, and in not a small percentage, as middle life approaches, cystercele, rectocele and prolapse occur. In fact gynecological literature has properly touched more frequently during the past few years on these subjects than on others.

Many operations and procedures have been devised for their relief.

The object of this paper is to point out some of the means which are available for their prevention.

The first which may be mentioned is the more universal dissemination of interest in obstetric knowledge and technique.

Obstetrics has so far in this country had a place some where between the general surgeon and the internist. Both have undertaken it rather under protest, and neither, generally speaking, have taken sufficient interest to study its problems. Both look forward to the time when they will no longer attend obstetric cases. The reasons for this are obvious. The physical burdens of obstetric practice are undoubtedly onerous. The remuneration is much less than for any other professional work which requires a corresponding degree of skill and labor.

The estimate which the public has placed on obstetric work is correspondingly low. It is not an uncommon occurrence to have a patient apply for treatment with the words "what will you charge?" first on her lips. She will perhaps go to many and engage the cheapest. She will not use this method of employing a doctor for any other purpose.

It is not strange that under these conditions satisfactory results have not been obtained. Perhaps ninety per cent of patients who go into labor have never had pelvic measurements made. We know that of this ninety per cent there is a small though certain percentage (probably 7 percent) which have some form of contracted pelvis, and in this percentage

*Read before Seaboard Medical Society, Norfolk, Va., December 3, 1919.

comes some of the greatest calamities of childbirth. It may be an unsuccessful high forceps with extensive injury of the foetus, servix or bladder, pelvic fascia, perineum or all these. We know also that there is a certain proportion of these calamities which can be avoided by a previous knowledge of the condition and the application of suitable treatment.

Another group of injuries follow the cases of eclampsia which have been allowed to occur on account of the lack of attention by either fault of the doctor or patient. For it is rare to see a case of eclampsia which has received even moderately careful supervision during pregnancy.

The second stage of this injury is accomplished when the patient is forcibly dilated (or torn), and rapidly delivered. It seems that I have seen more old, complete tears following this than any other cause. There may be room for difference of opinion about the management of contracted pelves, but there is no excuse for making no attempt to determine its existence. You may not agree with some one else about the treatment of eclampsia but there can be no difference of opinion as to the advisability of prenatal care as a means of prevention of morbidity.

We must admit, however, that we know of no means of preventing all tears. The people should know this, for otherwise they are inclined to censure the doctor who discovers and repairs tears. However there is much that may be done to prevent or limit them. In normal delivery the anaesthetic skilfully managed and pushed to the point of complete narcosis at the point of delivery which is accomplished between pains, by pressure on the forehead, is perhaps the most efficacious. It may be at times necessary to retard the progress by pressure downward over occiput until anesthesia is more advanced. Occasionally the perineum will seem to be pushed in front of the head rather than dilated. This will probably give the horseshoe tear whic hreally almost separates the vulva from the vagina, though sometimes not tearing the skin. This is the type of case in which episiotomy is most useful. A pair of scissors guided by the finger and directed towards the side of the rectum making sufficient incision to relieve the strain, will leave a wound very easy to repair.

Contraction of the pelvic outlet is a frequent cause of extensive tears.

Where forceps are used a cephalic application, making slow intermittent tractions, imitating the uterine contractions gives best results.

Primary Repair.

The results from primary repairs have been so bad that some (Hirst and others) advise making no primary repairs but leaving all for intermediate treatment. This course does not seem justifiable as a good result is possible in a large number of cases. Patients who are thoroughly exhausted do not heal as well as those in better condition. Of course infection is fatal to the results. The technique of repair, which I have found most useful, is very simple. The first stitch is a plain catgut, submucous, running stitch, beginning at the angle of vaginal tear and extending to the fourchet, where it is left for further use. This stitch is dependent on to restore the floor of the vagina. Now the lavator muscles and fascia are brought together by interrupted chromic sutures, leaving one end of the posterior suture long. The first suture may now be continued as a continuous subcutaneous and tied to the long interrupted suture which buries it entirely. At times I use several silkworm gut sutures introduced at edge of skin, sweeping outward and including fascia and muscle. These give excellent support and have been most satisfactory. The vaginal stitch protects the wound from the vaginal secretion, and by tention at completion of operation prevents dead space.

In complete tears a catgut submucous stitch is started at the upper angle of the rectal tear. This is continued to the outer margin of the anus and laid aside. The sphincter muscles are brought together with chromic gut. The remainder of this operation is exactly the same as the preceding one. The two submuco cutaneous stitches are tied at the completion of the operation. No stitch enters the rectum at any time.

The results from primary repair by this method have been, on the whole, quite satisfactory. But occasionally a case will not heal. It has been my custom to make an intermediate repair of these as soon as the wound is cleaned, usually about a week or ten days after delivery. This gives an opportunity of repair before the patient is discharged from the hospital. Every obstetric patient should be instructed to report at the office for pelvic examination five or six weeks after delivery. A record is made of condition of perineum and other pelvic organs. If there is any reason to believe the patient will need any subsequent repair work or

other treatment she is told of it, and plans are made for its execution at a proper time.

I have found that most patients are very appreciative of this service and cooperate very well.

Secondary Repairs.

Secondary repair is similar to primary, except for preparation and denudation. The flat method is usually used, and dissection of structures made. The muscles and fascia are brought together as in the repair of hernia in other localities. The closure of vaginal floor and skin is the same as in primary repair. Care is exercised not to injure muscles by applying clamps or forceps in handling them. The secondary complete tears are also managed like the primary, after the edges of the rectum have been released from the scar. These cases require more dissection to isolate the structures but the principles are the same. The results from these when successful are most gratifying. The oldest case I have treated had suffered from complete incontinence of feces for 20 years. The result in this case was perfect.

Eclampsia: Its Prevention and Treatment.—Lapthorn Smith (British Medical Journal) considers eclampsia a preventable disease, and one which in a few years, like many others equally fatal, might be made entirely to disappear. He believes that many of the lives lost by the "wait and see" method of treatment might be saved by a policy of prompt action. The presence or abesnce of albumin in the urine is such a sure diagnostic test that if routine examinations were carried out by doctors at the end of the sixth, seventh, eighth and ninth months, and if all midwives and nurses would instruct all women whom they were engaged to attend regarding the importance of going to a doctor for examination of the urine two, three, or four months before delivery was due, practically every case would be detected in time to be treated so that convulsions would be prevented. When albumin is detected in an early case the examination of the urine every week is a wise precaution. Another point that has been well established is that the amount of albumin in the urine can be greatly reduced, as well as the quantity of toxins, by a certain diet, while they are both increased by other articles of food. Another point that has come to be recognized is that the toxin is either urea or one of the products of nitrogen. Hence, abstention from fish, flesh, or fowl is at once followed by a marked decrease in albuminuria. As soon as albumin is detected in a pregnant woman's urine in a slight amount, she should be instructed to dress warmly and to avoid cold and wet, to drink larger quantities of water, and, if she can afford it, to give the preference to mineral and alkaline waters, such as Vichy, of which she should use not less than a bottle a day. If anemic she is given mild preparations of iron to make up for the cutting down of her allowance of meat, although she may continue with fish as long as the albumin is lessening or absent. In addition alkalis should be administered, a very useful one being mist. rhei et sodae suitably flavored and disguised. Exercise should be encouraged, either as work in the house or walking out of doors. When a woman comes for the first time at the end of the sixth month with a considerable amount of albumen, she should be put to bed on an absolute milk diet, and hygienic and other dietetic measures may then keep the amount of albumin within safe limits. When hesitating about interrupting the pregnancy we must keep in mind the danger of injury to the brain. A number of cases of paralysis are on record, and the writer has seen two due to brain lesions during the first convulsion. Chloral, choloroform, veratrum viride, and venesection should be discarded, because they lower arterial tension and bring about a condition akin to shock, so that the woman is in a bad condition to undergo any surgical procedure. On the other hand, a hypodermic of morphine, one-half grain with one-hundredth of atropine, is effective and does not stop the secretion of urine as has been supposed by some. One should also promptly supply water either by mouth or per rectum. If, after having done these things, a convulsion comes on, all are agreed that there must be no delay in emptying the uterus with the smallest amount of trauma and shock possible. All procedures included under the term accouchement force must be discarded, as well as vaginal cesarean section, and craniotomy. Abdominal cesarean section, performed by an experienced operator, is one of the safest operations in surgery for the mother, and enormously increases the chances of the child if performed after the end of the seventh month. One well known operator has operated on 550 cases of eclampsia within one hour after the first convulsion without a single death. The best time to operate is before labor

begins. A case of eclampsia must not be regarded as a one-man case. There must be three doctors and a good trained nurse if every case is to be saved.

The Diagnosis of Acidosis.—Acidosis has for years past been one of the fields of romance in Medicine. The term has lacked a satisfactory definition but has been used glibly in explanation of obscure conditions, often without a very clear conception of its real significance, and at times has been applied to conditions in which real acidosis can play no part. Moreover, unless the acidosis is marked, the diagnosis may present extreme difficulty. It is a great pleasure, therefore, to find such a clear and sanely critical review of the subject as that presented by Macleod (Journal of Laboratory and Clinical Medicine, 1919). He recounts the development in the use of the term, which was at first limited to the undoubted acidosis existing in cases of diabetic coma, then gradually extended to include all cases of acetonuria, and later included those conditions in which the acid production or retention involved entirely different types of acids. The difficulty in early diagnosis is depended partly upon the lack of an adequate conception of the disease process, but chiefly upon imperfections in technique of the methods used.

The desideratum is an estimation of the total alkaline reserves of the body. The author points out the difference between hydrogen ion concentration and titrable acidity, explains the errors inherent in titration methods when applied to blood or body fluids, and shows the superiority of the colorimetric method, using phenolsulphonephthalein and a set of solutions of known hydrogen ion concentration. The total alkaline reserves of the body are the alkalinity of the plasma, the alkalies of the corpuscles, the protein of the blood, and finally the alkalies and proteins of the tissue cells. The "buffer action" of these alkalies depend in the plasma on the ratio H_2CO_3:$NaHCO_3$ and in the corpuscles and tissue cells also upon the ratio between the diabasic and monobasic phosphates. Now the percentage of CO_2 in the alveolar air must be a measure of the available $NaHCO_3$ in the blood, but in the methods now used "the alveolar CO_2 can serve as an accurate index of the acid base equilibrium of the blood only under certain controlled conditions," and these conditions are difficult of attainment. Direct examination of the blood as to its content of $NaHCO_3$ avoid certain errors, but still yields figures short of the total alkaline reserve of the body. The author prefers the method of Haldane, which employs whole blood, to that of Van Slyke, which uses only the plasma. Methods combining blood and alveolar air examination are scarcely more accurate or informative. Another method whose value is still to be determined is to estimate the output in the urine of acid salts, salts of ammonia, and free acid, for when foreign acid is added to the body a corresponding amount must be eliminated by the lungs and kidneys.

In the opinion of the author "the best test of acidosis at present available in routine clinical work" is to determine "how much alkali can be added to the organism without causing the urine to assume an alkaline reaction." Normally, this is very small, about 5 gm. $NaHCO_3$, but in acidosis may be as high as 100 gm. a day. The value of this test seems to be established by experimental work. It is easy of application under all conditions, and should be extensively employed in practice. Comprehension of the principles set forth, and an appreciation of the relative value of the methods discussed, will serve to eliminate much loose talk concerning acidosis. It is to be hoped that the paper will be widely and carefully read, for only in this way can its value be fully realized.—Medical Record.

War Leprosy in France.—Perrin and Brac state that Marseilles is the city where one would expect to find exotic cases of this affection on account of its geographical and commercial situation. But aside from the imported case this terrain also represents an old focus of native leprosy. Hence it might not always be possible to distinguish at first between the imported and autochthonous forms. Advanced cases with tuberculous or mixed leprosy occurring in men known to have come from leprous foci need not be considered here, for we are concerned chiefly with abortive and nervous types. Many of these exotic subjects passed through Marseilles as a clearing point to be repatriated, and the mildness of the cases was remarkable, the general health being excellent and the symptoms few and slight. This could hardly have been otherwise when the men had been originally recruited as healthy soldiers from the colonial possessions of France. All of the cases described and illustrated appear to have been in negroes and Tonkinese.—La Presse Medicale.

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EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

THE ACID TEST.

It is in the nature of things, that everything, animate and inanimate must pass through some sort of test before it can be catalogued, filed, indexed and cross-indexed.

The steel girder entering into the construction of some mighty sky-scraper, must be tested to the breaking point before the O. K. mark can be placed upon it and it becomes acceptable to the master builder. For he knows full well, that a flaw in beam or upright will endanger the lives of thousands.

The engine boiler receives into its vitals the enormous pressure of steam necessary to demonstrate its fitness.

The cable, that safely holds hundreds of tons, swaying in mid-air, has been through the rigorous test before it is trusted in the work it was intended for.

And the highest of the animate world, man, is not exempt from the acid test, before he is accepted by his fellows, as safe. The degree of calm fortitude with which he weathers the storm of business or professional adversities, places the mark o. k. safe if he comes up strong, smiling and ready for battle.

Perhaps nowhere in the inanimate world, do we find the examiners more strict and careful, than in the therapeutic field. This is as it should be, otherwise charlantism would be rampant.

In mechanics there is more homogeneity than in the human family. "No two men are alike," is a trite saying and therefore the test of a therapeutic agent, consumes a much longer time than the test of a boiler. Many more factors must be taken into consideration, innumerable tests, experiments, if you please, on different types of the human family, before the cautious label, "o. k. safe" can be affixed.

We have heard that Salvarsan was submitted to many tests before it was given to the profession and that the numerals "606" by which it was known for a time referred to the number of those tests.

We can all recall therapeutic agents that held the center of the stage for some time, only to be cast aside and forgotten when submitted to a test of greater severity.

In the comparatively new therapeutic agent, radium, we have an example of the survival of the fittest, after the most severe and continued acid tests. It is quite probable, that if the knife had had the task set for it, that radium has been called on to perform, surgery today would be in disrepute.

Radium has been obligated to win its cheverons, in cases that have been refused aid by the knife, and we feel that it need not be ashamed of its record.

When a cervix uteri that has been so far destroyed by carcinomatous invasion, that operative measures are absolutely out of the question, can by the proper application of radium be brought to a comparatively healthy condition, it naturally compels the thought. If radium locally cures a carcinoma in a case beyond the healing effect of the knife, would it not, a priori do better work than the knife in a distinctly operable case.

We feel that this question will find its answer in time and not long at that.

THE VIRULENCE OF THE GONOCOCCUS IN CHILDREN.

Investigations into the pathogenicity of certain bacteria—particularly the streptococcus—have proven that the same organism, grown under varying conditions, is capable of producing a variety of lesions. We also know that the same strain may have a varying degree of virulence and, while working havoc in certain individuals, may be inocuous in others. The relative susceptibility of the infected individual seems to play an important part as well.

It has not been clearly demonstrated why "Typhoid Mary" for example should harbor typhoid bacilli which, harmless to herself, have caused such wide spread epidemics of typhoid fever, or why others could carry diphtheria bacilli in their noses and throats which, though not producing symptoms in the carrier, become quite virulent when transmitted to a susceptible person.

The valvo-vaginitis of children offers the same peculiar problem. Microscopically, the gonococcus causes the disease, which is quite resistant to treatment and easily transmitted to other little girls but does not, in any way present a picture of gonorrhea and does not seem to cause disease in adult females.

Just why this particular strain should

not produce the disease and another strain from the male urethrea should prove so highly virulent in young women is in no sense clear. A great deal has been written about "virgin soil" but that alone as an explanation, cannot be accepted. The clinical writers have begun to express doubt that the last word as to the origin of the disease has been said.

Are our so called advancements to be superceded by others endlessly and shall we again find that we must have recourse to old purely clinical methods of investigation.

It is significant that with all the new "discoveries" in the treatment of syphilis, we still have to depend on mercury for our cures; mercury—which was used for the treatment of the disease in China 5,000 years ago, if we are to believe medical historians.

The laboratory experimenters have a long road ahead and the young medical man who feels that all the big things in medicine have already been worked out, should experience an incentive to aid in real "discoveries."

MEDICINE SOCIOLOGY AND THEOLOGY AS WORLD BUILDERS.

Medicine, sociology, and theology are looked upon by all thinking men, as being three of the many interdependent and intermingling human forces which are everywhere and eternally at work, in the upbuilding of mankind.

These forces are the forces of sciences. That is to say they are scientific forces. And, like all other sciences, medicine, sociology, and theology are but the outputs of instinctive attempts on the part of men, to differentiate apparently particular workins of Natural law, into specialty studies. The sciences are interpretations of Natural law, as man sees the law.

All sciences are necessarily man-made. For this reason the force of the sciences, is a force that is purely human. Whenever men grapple with Natural law, in the study of the secrets of that law, it at once becomes very evident that the best any one body of men can possibly do, is to confine the study to some one feature of the law. And hence the sciences. Mathematics and chemistry, are other two such man-made sciences.

It sithe hope of men through the study of the sciences, to get to the more plainly understand Natural law as a whole. And so, as has been stated, men have divided up Natural law, as that law affects man's physical health; as it affects man in his community life; and as it affects man in all that pertains to ethical life, under these three respective scientific headings. In this way, which is the usual way, men have made the three so-called sciences. And while the study of these sciences is of course, but the study of the one Natural law, still it is through and by these sciences that the law may be seen to be building itself into man's existence, in directions which seemingly are specifically featurable.

Thinking and humanity loving men, ally themselves with those who are already bearing the torch of practical investigation and research. Instinctively men do this. And men specialize in one or the other of these sciences. Which is well. But the broad minded man does not specialize in any one science, to the exclusion of all thought of the others. If a man does so specialize; if he confines himself to the study of a single life phenomenon, he may be popularly considered a genius, but as a cold biologic matter of fact, such a man is of narrow view. He would build but little.

The thought is not at all that men should study to know only as much about one science, as they know about the other two. Far from it! Such a conglomerate grade of education, would be as impotent to get the world anywheer in particular, as would be the education of the specialist of the single idea, who would shut himself out from all contact with the other sciences so that, for instance, he might specialize in theology. The matter of worl building, is a bigger job than that! These sciences have to do with the entire man.

It is needless to say that these three sciences, in the evolutionary sense, are basic to the continued existence on earth, of a progressively developing mankind. Hence it is always so that man's real attained advancement as a world building power, is mercilessly determined by the carefulness with which he has studied along these lines, and by the saneness with which he has applied evolutionary principles, in his life among men. Man, as a mere animal—which probably is as much as once could be said of him—might for a time be able to maintain himself on earth, without being conscious of the worth of the building force of the higher laws, which these sciences study. But man is more than physical, just as he is more than mental and moral. Medicine,

sociology, and theology must be coordinated in aim.

Man gets as much out of these sciences as he puts into them. And no more. Faulty interpretation of Natural law, does not in the least alter the operations of that law. Faulty application of a principle of the law, merely adds to man's confusion, and gets the world nowhere. Lots of theologians have tried to cure disease by prayer. Lots of medical men have thought they could cure immorality, by medical means. Other lots of sociologists have thought that applied sociology, would solve all medical and theological questions. To entertain such views, points either to an unsymmetrical education on the one hand, or to an entire lack of information regarding vital things on the other. These sciences are a triumvirate of humanity building function.

While the sciences have to do with all that relates to man physically, they also govern in faculties that are altogether supra-physical. The sciences foundation man's self-preservation efforts. And the work thus done by man, makes up the structure which is called civilization. And so the civilization of any day shows up with inevitable exactness, just how intelligently and faithfully man has been using these sciences in the task of world building.

TWENTY-SECOND ANNUAL SESSION TRI-STATE MEDICAL ASSOCIATION TO CONVENE IN CHARLOOTTE, N. C., FEBRUARY 18, 1920.

Pursuant to a recent order of the executive council the Tri-State Medical Association of the Carolinas and Virginia has accepted the unanimous invitation of the Mecklenburg County Medical Society and will hold its twenty-second annual session in Charlotte, N. C., beginning February 18, 1920, and continuing as usual two days.

This society was organized in 1898 by a number of the leading medical men of the three constituent states, and has enjoyed a continuously active life, holding annual session alternately in each state. The entire time of the sessions are given to the consideration of questions of interest to the advanced thought of the profession, and it is safe to say the proceedings contain papers and discussions calculated to rank with the best of American medical societies.

A number of admirable papers have already been promised by some of the leading lights of the profession, and there is every reason to believe the forthcoming meeting will prove one of the association's best.

A recent meeting of the Mecklenburg County Medical Society appointed the following committee of arrangements:

Dr. A. J. Crowell, Dr. Wm. Allen, Dr. J. R. Alexander, Dr. Oren Moore.

These gentlemen are much interested in the success of the session and co-operating fully with Dr. C. M. Strong, President Mecklenburg County Society, will complete all local arrangements essential to the making of a fine meeting. The Tri-State President, Dr. Robt. C. Bryan, Richmond's well known surgeon, and the Secretary-Treasurer, Dr. R. E. Hughes, Laurens, S. C., will each be pleased to make reply to any enquiries and to list papers for the programme.

The medical profession is, no doubt, interested in a joint resolution known as H. J. Res. No. 257 introduced by the Hon. Layton on December 8, 1919. This resolution is similar to the one disposing of dental surplus stock and would doubhtless have been included with it at that time, had any of the doctors signified their desires and requested an opportunity to purchase the surplus stock. This present resolution, if passed as introduced, will dispose of all surplus surgical instruments and other instruments of every character, together with the dietary foodstuffs which were intended for the use of the sick and wounded. It further provided that those men who served in the medical department of the army, navy, and marine corps during the recent war shall have the preference of purchasing said stock.

After the dental surplus stock bill was passed, an effort was made to dispose of this surplus medical stock by giving it to the Red Cross to be used in foreign countries. There is no question in any medical man's mind that our own people who are sick and injured should have the benefit of these supplies. And no doubt, the men who have worked in the war will appreciate very much the opportunity of buying goods of this quality at the pre-war prices. It occurs to the writer that the most physicians in this country will want certain supplies or instruments, and will appreciate being able to buy this surplus stock at reasonable prices, rather than to buy inferior goods which in many

instances are of little value and mostly of less value than this surplus stock.

If the medical profession wish the same opportunity offered the dentists, they should request of those who are representing the min Washington, and ask them to support H. J. Res. No. 257. This resolution was referred to the committee on military affairs and ordered to be printed. It might be well to let the members of this committee know your wishes in this matter and request that they give it careful attention, and give the doctors an equal opportunity which was previously given to the dentists.

EDITORIAL NEWS ITEMS

Dr. D. M. Moser of Claremont, N. C., died November 9. Dr. Moser was one of the best known physicians in Catawba County.

Dr. Alonzo Myers, formerly of the New York Orthopaedic Hospital, announces the opening of his office at 204 North Tryon street, Charlotte, N. C. Practice limited to Orthopaedic Surgery.

At a recent meeting of the Davidson County Medical Society a readjustment of the fee scale effective January 1, was adopted. The fees will be from 25 to 40 per cent higher at the beginning of the new year than they have been heretofore.

Dr. T. E. Stokes, a practicing physician of Greenville, S. C., was on November 24th choked to death when his car turned over and a part of the machine fell on his neck and caused almost immediate death. Dr. Stokes had been a resident of that city for several years and was well and favorably known.

Mr. R. E. Blakley, 28 years ago, was the publisher of the Charlotte Medical Journal associated with the present editor, died recently in a local hospital in Richmond, Va. The writer's long experience with publishers can very appropriately say that Mr. Blakley was one of the most expert manager or director of a publishing house of any man that the writer has ever come in contact with.

It was mainly on his account that the Charlotte Medical Journal now exists. Petersburg, Va., was his native home but he lived here many years. He always conducted a nice clean business and accumulated a fortune.

Fire at Camp Sevier, Greenville, S. C., on November 7th destroyed the officers' quarters of the United States public health service hospital.

The building was one of the largest in the camp. Several of the medical officers' lost all of their personal effects, and many lost their bed belongings.

Dr. Stewart R. Roberts announces the association of James J. Clark, M. D., Roentgenology, C. W. Marriott, D. D. S., Dental Diagnosis, Robert Holland, M. D., Internal Medicine, L. B. Robinson, Ph. G. M. D., Internal Medicine, Diagnosis and Internal Medicine, 20 Ponce De Leon Ave., Atlanta, Ga.

Dr. John G. Blount of Washington, N. C., died suddenly of apoplexy on December 8th. Dr. Blount was a prominent physician and at the time of his death was a member of the Medical Examining Board of North Carolina and also superintendent of health of Beaufort County. Dr. Blount was a graduate of the Bellevue Hospital Medical College, New York, and received his license to practice medicine in 1892. He joined the State Medical Society in 1893.

Dr. E. A. Hennessee's slayer is to be electrocuted. The supreme court of North Carolina has just handed down a decision that means the death of a Mr. Wiseman who shot Dr. Hennessee seven time in the back about a year ago, killing him almost instantly. Dr. Hennessee was a licensed physician of North Carolina and a member of the state medical society. He graduated at the U. S. Grant University in 1900. Dr. Hennessee was a man of very distinct personality and had many friends.

Dr. John W. MacConnell, late Lt. Col. Medical Corps, received his discharge at Ft. McHenry, Md., on November 23rd and will resume his practice in January. Dr. MacConnell was chief of the section in Oto-laryngology at the Base Hospital at Camp Jackson, S. C., for a year and occupied the same position with Base Hospitals 60 and 30 i nthe A. E. F. Upon his return from France in June he was held as a patient at the hospital at Ft. McHenry, having been injured by a runaway horse.

Dr. MacConnell will continue his work as a member of the faculty at Davidson College, and will limit his practice to Eye, Ear, Nose and Throat."

A statement from the city health officer of Goldsboro, N. C., indicates the results of a recent survey of that city showing approximately 25 per cent of its inhabitants afflicted with malaria. A public health engineer is now planning a vigorous anti-malarial campaign for 1920 which is expected to materially reduce malarial incidences.

Miss Kate Herring, formerly with the N. C. State Board of Health, will on January 1 begin work with the Maryland Social Hygiene Association, headquarters in Baltimore, Md., initiating a two-year experimental program, which if resulting favorably will be recommended by the U. S. Public Health Service for general adoption by the states. Dr. Hugh J. Young will co-operate in the Maryland work.

The Mississippi Valley Medical Association, at its forty-fourth annual meeting in Louisville, Ky., October 22, 1919, elected the following officers for the ensuing year: President, Dr. Frank B. Wynn, Indianapolis; First Vice-President, Dr. C. W. Dowden, Louisville; Second Vice-President, Dr. Frank Smithies, Chicago; Secretary, Dr. Henry Enos Tuley; Treasurer, Dr. S. C. Stanton.

The recent announcement by the General Education Board of New York of an addition to previous gifts to Vanderbilt University Medical Department of $4,000,000.00 is a very handsome benefaction, and places this institution, already well to the forefront of southern endowed school of medicine, far in advance of every other college of medicine in the South, and with facilities for equipment and permanency of instruction equalled by few of the northern schools.

The Buncombe County Medical Society, Asheville, N. C., held its annual banquet at the Hotel Manor December 15 and elected the following officers for 1920:

President, Dr. J. M. Lynch; Vice-President, Dr. Thompson Frazier; Secretary-Treasurer, Dr. W. L. Dunn; Censor, Dr. C. W. Colby. Delegates to State Society: Drs. Chas. L. Minor, H. H. Briggs, C. P. Ambler. Alternates: Drs. Thompson Frazier, W. P. Herbert, Paul H. Ringer.

A number of out of town guests attended the banquet which was of the usual high character for which the annual dinners of this fine Carolina society is famed.

A Function of the Internal Secretion of the Thymus.—Muller found that exhausted muscles in experiment animals—frogs, rabbits, etc., were restored to vigor by thymus inecjtions. As between the muscle and its supplying nerve it was evident that the stimulant effect was upon the latter. We already knew that in animals extirpation of the thymus causes myasthenia.—Le Progres Medical.

St. Peter's Hospital of Charlotte, N. C., has received a donation of $20,000 from Mr. and Mrs. W. A. Erwin of Durham, N. C. The gift is to be used as a memorial to their grandson, Hamilton C. Jones, whose death occurred a year ago.

The money will be administered by the board of trustees of St. Peter's Hospital and will go toward the erection of an annex to the hospital. This annex will probably include a children's ward and a maternity ward.

Colored Hospital for Dallas, N. C.—There is a movement on foot among the colored citizens of Gaston county to build a colored county hospital. We hope the movement which is the first of the kind in North Carolina will be a success and it will be a fine example to establish for other counties where the colored population is quite larger than in Gaston county.

The Spartanburg County Medical Society of South Carolina at its annual meeting held in Spartanburg, December 19th elected the following officers: President, Dr. D. L. Smith; Vice-President, Dr. W. B. Lyles; Secretary, Dr. J. E. Edwards; Treasurer, Dr. Oscar B. Wilson; Censors, Drs. J. E. Cudd, W. H. Harper and P. P. Chambers were made new members.

The following communication has just been received from Dr. Jas. A. Martin and it certainly gives us pleasure to publish same:

The officers of Robeson County Medical Society for 1920 are as follows: President, Dr. Thos. C. Johnson, Lumberton, N. C.; Vice-President, Dr. D. S. Currie, Parkton, N. C.; Secretary and Treasurer, Dr. Jas. A. Martin, Lumberton, N. C.

Dr. W. E. Evans, Rowland, N. C., delegate to State Society with Dr. N. H. Andrews, Rowland, N. C., as alternate.

We have a membership of 34. Every physician in the county is a member except one, and he refuses to oinj. (Also we have one Indian and one colored physi-

cian who of course are not members.)

We meet every two months and our meetings are well attended and much interest manifested.

The Fifth District Medical Society will be entertained by our society at Red Springs in February.

The inadequacy of the hotel facilities of our sister city, Winston-Salem, has recently necessitated the extending of an invitation by the Mecklenburg County Medical Society to the Tri-State Medical Association of the Carolinas and Virginia to hold the twenty-second annual session in Charlotte, N. C., February 18-19, 1920. The Charlotte profession will heartily welcome the fine body of the high grade physicians and surgeons of these states, and advance advisements indicate a splendid program and a goodly attendance.

Destruction of the Louvain Library.— The extent of the vandalistic work of the Germans at Louvain is now fully appreciated. The destruction and pillage went on during August 25 to 30, 1914. Magnificent wainscoating, antique sculptures, portraits of Erasmus, Lipsius, Jansen, collections of manuscripts, the famous example of vellum presented to Vesalius by Charles the Fifth, the volumes of the library, the MS. of the forthcoming edition of Van Gehuchten on the anatomy of the human nervous system along with other valuable MSS. and records of the Faculty were all deliberately destroyed by order of the high command. Van Gehuchten went at once to the University of Cambridge to continue his labors, but died a few months later of volvulus.—Gazette hebdomadaire des sciences medicales de Bordeaux.

"The new motion picture, "Some Wild Oats" on the venereal disease question, has been released. This picture was made under the auspices of the N. Y. C. Health authorities, and with the aid of the U. S. Navy, Recruiting Division. It is in seven reels, one reel containing propaganda, and the other six a powerful love story, showing the ravages of the disease, how it is contracted, and the solution for stamping it out of every locality.

In one of the reels, Royal S. Copeland, Health Commissioner of New York City, is shown at work, and it also shows what this department is doing to eradicate this menace in New York City.

This picture is the most recent of V. D. Pictures produced, being made by the health officials who condemned, "Fit to Win," "The End of the Road," and "Open Your Eyes," which they considered immoral and prohibited their showing in the State of New York. All the authorities on the subject claim that "Some Wild Oats" is a clean production, for it is so constructed that it will not offend anyone, as it teaches a wonderful lesson —without preaching.

This picture will be shown in the regular theatres, throughout the country, wherever it receives the support of the local authorities. It is considered the best propaganda film that has ever been made on public health subjects, and should be shown in every municipality of the United States."

Dr. Charles M. Strong of Charlotte, N. C., was recently elected president of the Mecklenburg County Medical Society. The society now is the largest county society in the state having over one hundred members. Dr. Strong succeeds Dr. B. C. Nalle who held the office during 1919.

The vice-president is Dr. Fred D. Austin and the secretary is Dr. J. R. Ranson. Dr. W. H. Parsons was elected treasurer. The delegates to the state society meeting next April to represent the local society were named as follows:

Drs. B. J. Witherspoon, former president of the local society, J. E. S. Davidson, L. W. Hovis and R. Z. Linney.

Delegates to the American Medical Association meeting next year will be elected by the state society in April.

The doctors heard the report of Drs. J. P. Monroe and Caldwell on their petition to the city to open one or more drug stores all day Sunday. The committee was continued with plenary powers to urge this action on the part of the city commissioners.

Dr. E. Reid Russell of Asheville, N. C., one of the leading eye, ear, nose and throat specialists of this section of the country died November 28th at a local hospital in Asheville. He died from blood poisoning caused from a small scratch on his left hand when he was operating on a patient. Dr. Russell was a native of High Point where he was born April 2, 1870, and he with his father's family, moved to Rockingham a year later. After leaving the high schools of his city he spent several years at the Virginia Military Institute. Then he went to the University of North Carolina, and later grad-

uated in the medical department of the University of Maryland. He located in Hickory, N. C. Later he prepared himself to be an eye, ear and nose specialist and moved to Charlotte. He became interested in the North Carolina Medical College and was a teacher there until he moved to Asheville.

He received his license to practice medicine in the year 1895 and joined the State Society in 1898. He was one of the initial members of the Mecklenburg County Society. He was also a member of the American Medical Association and the Tri-State Medical Society of the Carolinas and Virginia. He participated in the building of the Charlotte Sanatorium and until he moved to Asheville he was one of the directors of that institution.

Dr. Russell was a remarkable man in many ways. Socially he was very popular. Professionally he was certainly a skilled operator and was thoroughly familiar with his line of work. In the sick room he was one of the most resourceful men that the writer has ever known. He had the ability to please and satisfy his patients and the friends of his patients more than any man that the writer has ever come in contact with.

In the death of Dr. Russell, Asheville and North Carolina, and the profession generally has sustained a great loss.

LETTER FROM DR. WOOD.

Marlborough Lodge,
227 Willesden Lane,
London, N. W. 2.

Dear Dr. Register:

I was glad to hear from you. Your letter was one of the few I have had since reaching London.

This venture of mine was generally regarded among my friends as a pathologic mental process. I was, however, firm in my notion that there was much in British medicine that we had not conceived of and that this awful war had crystallized many things.

The only shock I have had is that the half had not been told. The clinical material is matchless. Not only in the wards but tn the out-patient departments there is absolutely no limit to material. It matters not what subject is being considered there is always as many cases of it as one could wish. The quality of the teaching is surprising. It is most thorough and painstaking. There is no rushing through and no slurring of anything. The teachers are able men all of whom have served long apprenticeships under the ablest men of a previous day. Nobody "arrives" here at a high teaching position unworthily or immaturely. The classes are very small allowing for the most intimate personal contact with the teaching and a real discussion of the case. This is the result of what is known as the Fellowship of Medicine which is an organization fostered by the Royal Society of Medicine which has been carried to a successful issue by Sir John MacAlister and Sir William Osler.

The best medical instruction I have ever received is given at the National Hospital for the paralyzed and epileptic. Dr. Gordon Holmes, Dr. Collier, Dr. Farquhar Buzzard, and Dr. Grainger Stewart are among the teachers. We are taught in the room where Gower did his great work and where Sir Victor Horsley was heard for so long. Dr. Collier is a brilliant neurologist and is said to have described Babinski's sign simultaneously with Babinski. He is a great teacher as is Dr. Gordon Holmes also. The others I have yet to hear.

Across the street from the above-mentioned hospital which goes by the name of "Queen's Square Hospital," because of its location, is the celebrated Great Ormond Street Hospital for Sick Children where such men as G. F. Still holds forth.

I am receiving great instruction at Guy's Hospital. In Atlantic City last June all of us were deeply impressed with Col. Arthur F. Hurst. His subject was the re-education of the functional nervous cases. Naturally when I reached London I sought him out. He has a large service at Guy's with abundant out-patient material as well as two wards (probably more), Addison and Wary, which supply all needed material. It is surprising to see how he will take such a case as disseminated sclerosis and teach the bed-ridden patient to walk and then to go through all sorts of arm movements while working. The rapidity of the progress is amazing. He tells me that as this improvement advances there is a parallel return to normal of physical signs as the knee jerks. The limit of this new field of medicine seems boundless. It impresses me as psycho-therapy rid of all its offending qualities. I expect to spend a large part of my time at Guy's with Dr. Hurst.

At St. Bartholomew's the celebrated Sir Archibald Garrod, whose name is so well known in the study of gout, is one of the leading men. He goes about his work

with apparent interest and zeal yet during the war he lost his three sons and has no mroe. It is here that we must admire the British. They still "carry on" in the face of grief and hardships. London presents a much more normal front than does labor-tossed New York. Food is costly and butter is almost unknown. Sugar is scarce. But we want for nothing. I have grown fond of margarine and recall the teaching of Dr. Harvey Wiley (I think it was) who said when butter exceeded a certain reasonable price we should eat oleomargarine.

For a long time I have felt that so many clinicians are overlooking the importance of X-ray interpretation and depend too much on the technician. So I have been doing a good deal of work at St. Bartholomew's with Dr. Fizzi who is an expert. The equipment there is excellent and the men engaged are past masters having had five years of war experience added to their civil experience. When a chest plate showing a bronchopneumonia, a cavity, and a small localized pneumothorax can be passed on by X-ray experts and then discussed with the X-ray man by Dr. Sir Archibald Garrod you can well imagine how I am sitting up close and getting "the drippings from the sanctuary."

The school of Tropical Medicine has undergone a new phase which is altogether in the line of advance. Hitherto this school was at the Royal Albert Docks in the seaman's Hospital in East London. It has now been moved to a point near the University College Hospital. From the Seaman's Hospital suitable cases are called and taken to the near hospital. I expect to enter this school for the full course in February.

At the University College Hospital Thomas Lewis, the great heart authority, holds forth. I expect later to try and get a number of months work with him. Sir James Mackenzie whom all Americans admire so keenly has withdrawn to his native Scotland but still is hard at work. About his work I hope to hear more later.

To Americans the Fellowship of Medicine should be most interesting. The office is in this Royal Society of Medicine, 1 Wimpole street. Miss Willis is the able secretary. Every Saturday we receive a week's schedule of all the lectures and clinical work available. The hospitals taking part in scheme are Guy's, King's College, London, London Free Royal for Women, Childless, St. Bartholomew's, St. George's, St. Mary's, St. Thomas', University College, Westminster, Cancer Hospital, Central London Opthalmic, Central London Throat, Chelsea for Women, Great Northeastern Central, Hampstead General and Northwest, Hospital for Diseases of the Throat, for Sick Children (Gt. Ormond St.), Margaret Street Hospital for Consumption, National for Diseases of the Heart, Nat. for Paralyzed and Epileptic, Prince of Wales General, Queen's for Children, Royal Eye Hospital, Royal London Ophthalmic, St. Mark's for Diseases of the Rectum, St. Peter's, Samaritan Free for Women, Seaman's Hospital.

In addition frequent splendid clinical lectures are given us at the Royal Society of Medicine by such men as Sir Wm. Hale-White on the Prognosis of Exophthalmic Goitre.

Later I hope to send you a bulletin of the Fellowship of Medicine.

Such a windy letter please pardon. If you care to call certain points do so. It is not written for publication.

Many of your readers will rejoice to hear that Sir William Osler is convalescing fro ma protracted bronchopneumonia. He writes me from Oxford: "I am better though still abed and coughing. Pfeiffer's bacilli is at work."

With kindest regards,

Cordially,

EDWARD J. WOOD.

Hernia Across the Lesser Sac of the Peritoneum.—Pringle (Glasgow Medical Journal) states that these herniae may be divided into two main types, viz.: (1) Hernia through the foramen of Winslow, and (2) hernia through an abnormal opening. The abnormal opening may be situated: (a) in the mesocolon, in which case it would appear to be most frequently placed within the vascular arch of the middle and left colic arteries, or (b) the opening may be in some part of the omentum. If the bowel passes beneath the colic arch it may (a) remain in the lesser sac and present either above or below the stomach, or (b) may escape again into the general peritoneal sac above the stomach, "gastro-hepatic" type, or below the stomach, "gastro-colic" type. In the majority of cases of hernia through the foramen of Winslow that are recorded, a comparatively short length of bowel was herniated. The larger herniae seem to have presented beneath the gastro-hepatic omentum, and in Treves' case the cecum and vermiform appendix burst through that structure.

BOOK NOTICES

Tenth Annual Report of the Commissioner of Health for the Commonwealth of Pennsylvania 1915, part one. Harrisburg, Pa.: J. L. L. Kuhn, printer to the Commonwealth.

Department of Commerce Bureau of the Census, Sam L. Rogers, Director. Mortality Statistics. 1917 Eighteenth Annual Report. Washington Government Printing Office.

"A Manual of Obstetrics," by John Cooke Hirst, M. D., Associate in Gynecology, University of Pennsylvania; Obstetrician and Gynecologist to the Philadelphia General Hospital. 12mo. of 516 pages with 216 illustrations Philadelphia and London: W. B. Saunders Co., 1919. Cloth $3.00 net, Philadelphia and London.

This book is written as a companion to the author's Manual of Gynecology. It also presents, as far as possible on the printed page, the methods of teaching the subject he has used with satisfaction for the last twenty years. Throughout the book an effort has been made to present the subject clearly and concisely, and to avoid all unprofitable discussion. The methods of treatment and technic of operations advocated have all been tested in practice and have given satisfactory results.

The scope of the book has been rather sharply limited. A minimum of embryology has been included. Diseases of the newborn child are included only in so far as they occur during the puerperium. The chapters on lacerations of the birth-canal and consequences of child-birth, while differing somewaht in scope, are necessarily very similar to the same chapters in the manual of Gynecology.

A new classification of deformities of the pelvis is presented, classifying them according to their most prominent deformity. This method has been found easier for the student to remember, and simplifies the discussion of their management.

Especial care has been given to the description of the mechanism of labor, with a view to simplifying this, to the student, most puzzling subject. The illustrations in this chapter have been chosen with the idea of enabling him to visualize the different presentations, a thing most essential in the proper application of forceps.

The longest chapter is that on the obstetric operations. Especial care has been given to a somewhat extensive description of that most dangerous of all obstetric instruments, the forceps. The different operations are all detailed, with indications, contra-indications and the steps of their performance.

The entire subject of obstetrics hemorrhage is to be found in one chapter, with precise directions as to management.

The book makes a handsome manual and is well written. Dr. Hirst is indeed a very clever writer and his position as a teacher and as a practitioner is a sufficient recommendation for the book.

"Manual of Obstetrics," by Edward P. Davis, A. M., M. D., F. A. C. S., professor of obstetrics in the Jefferson Medical College of Philadelphia. Second edition, revised. Philadelphia and London. W. B. Saunders Company.

This is a first class manual in every respect. It contains 477 pages and it has 163 illustrations which are very appropriate and thoroughly illustrate the book.

This, the second edition of the book has been delayed on account of war work. It has, however, been revised and new matter added to the following subjects: Differential diagnosis of early pregnancy; Treatment of eclampsia by sedatives; prolapse of pelvic organs complicating pregnancy; chorio-epithelioma; cystic degeneration of the chorion (hydatidiform mole): Anesthesia and analgesia in labor; placental bacteremia; inversion of the uterus complicating labor; septic infection at the placental site complicating labor; basiotripsy, and abdominal cesarean section (the Porro operation).

Dr. Davis is a well known teacher and a very attractive and forceful writer. The book is thoroughly up-to-date.

Artificial Lemon Juice.—Huerre gives the analysis of lemon juice as follows: Citric acid, 7.50 c. c.; malic acid, 0.50; saccharose, 0.45; invert sugar, 2.00; potassium citrate, 1.00; calcium citrate, 1.00. In addition there are traces of iron and phosphorus. Water, of course, to make 100 parts. If a synthetic lemon juice cannot be substituted for the natural product it must be because something akin to vitamine is present in the latter.—La Presse Medicale.

Pharmaceutical House Makes Interesting Announcement.

In view of the nation-wide movement against intoxicants and the trend of the times as regards alcohol in its various forms, it is refreshing to note the stand taken by one of the large pharmaceutical laboratories—Eli Lilly & Company of Indianapolis.

An announcement has just been made by this concern that its price list has been undergoing a revision and that alcoholic medicinal preparations that showed an increase in sale due to their use for beverage purposes, have been deleted from the list.

Eli Lilly & Company recognizes the fact that there is a legitimate demand for many of the products containing alcohol; it also recognizes that under existing laws some of these products constitute a temptation to the unscrupulous. Rather than consent to an abuse of its products this manufacturer stands ready to discontinue their manufacture and sale.

The support of the medical profession is solicited on the basis of high quality and a unique selling policy. It is needless to say that the medical profession will undoubtedly look upon this step by Eli Lilly & Company as an admirable act in keeping with the attitude of being one of the most ethical pharmaceutical and biological houses in this country. It is to be hoped that many other pharmaceutical houses will follow in the lead of this Indianapolis manufacturer and thus assist in elevating pharmacy to the highest possible plane of service to the medical profession.

In an age when the written word runs into millions every year, fearless, indeed, is the writer who dares to produce "mere words." To hold a reading audience, facts and facts only are an essential and the portrayer of facts is the popular author of the day.

The physician, in his ever constant search for additional knowledge, is entitled to the best there is, and with this end in view a brochure "The Pneumonic Lung" has been published in the belief that therein the discriminating physician will find some facts which will aid him in the pursuit of his professonal duties. The text matter of this booklet is the result of long and exhaustive study of the literature on pneumonia in its different phases, and in its preparation the works of practically every standard author who has discussed internal medicine have been consulted. The clinical records of hospitals have been a source of information and confirmation; the most recent discussions on pneumonia in American, British and French medical journals have been perused, and no field which would yield information has been left untilled.

The illustrations have been painted especially for the accompanying text. The subject has been given the closest attention and study, and no opportunity has been neglected to attain the close pathological and anatomical touch so essential in bringing out the necessary details, thus adding to their practical value. Expense has been no factor in the production of this brochure. With the object of presenting to physicians a booklet which would refresh their knowledge of the etiology, pathology, symptomatology and treatment of a most destructive disease and in order that they might constantly have at their elbows an authoritative and most practical exposition of the subject, the authors have gone deeply into the matter.

Physicians may obtain, without expense to them, a copy of this interesting booklet by addressing The Denver Chemical Mfg. Co., 20-24 Grand St., New York City, N. Y.

Disagreeable Cod Liver Oil is Unnecessary.

The main disadvantage hitherto attaching to cod liver oil has been its disagreeable taste, a condition increasing the longer the oil was taken. This militated against its use in delicate persons whose stomachs were easily disturbed.

In Cord. Ext. Ol. Morrhuae Comp. (Hagee) this disagreeable feature has been eliminated without interfering with the oil's therapeutic power, a distinct advantage thereby accruing. As a result of making the oil palatable in Cord. Ext. Ol. Morrhuae Comp. (Hagee) it is possible to give it for long periods without causing distress, or aversion to the oil.

It should be remembered that in Cord. Ext. Ol. oMrrhuae Comp. (Hagee) the process of manufacture has retained the essential elements of the plain oil and made a palatable preparation that is acceptable to the most delicate stomachs, and which may be continued for long periods. This agent will do all that the plain oil will in the way of therapeutic purposes.

Use Cord. Ext. Ol. Morrhuae Comp. (Hagee) whenever cod liver oil is indicated.

Sudden Detachment of Aortic Intima.—Cranston Walker, in The British Medical Journal, reports the case of a man apparently in good health who fell down suddenly and nearly died; he recovered somewhat and complained of intense substernal pain and of pain and paresis of the left leg. The latter condition improved. About thirty-eight hours later the man suddenly died. The condition of the left leg was probably due to a portion of the loose intima happening to occlude, completely or partially, one of the main arteries to the limb. When the man was admitted to the hospital, about three-quarters of an hour after the sudden onset of symptoms, the cardiac impulse could not be felt. To percussion the left ventricle was slightly enlarged. The heart rate was increased and the diastole somewhat shortened, but there was no other disturbance of rhythm. The pulse was rapid, exceedingly small, and of such a character as to cause immediate anxiety as to life. The radial arteries were somewhat thickened. The post-mortem examination disclosed the greater part of the aortic intima lying free in the lumen. The aorta was extensively atheromatous and the intima was perforated in several places by atheromatous ulcers. The writer discusses the question as to how intimal stripping can be brought about, giving the various theories advanced to account for it. The writer maintains that in the absence of bulging of the outer coats, static considerations alone do not provide an adequate explanation, but that the motion of the blood is a significane factor. He says that it may be surmised that if an intima were already undermined and perforated by atheroma, detachment might be accelerated by the moving stream. If tags of intima were partially detached they could be projected into the lumen as flaps, so directing more of the kinetic energy toward stripping. Finally a flap might be thrown directly across the lumen, causing a dam; then the whole of the kinetic energy would be directed to intima stripping, and, as well a powerful pressure factor would be brought into play; the blood pressure below the flap and within the intima would rapidly fall toward zero, while the pressure above the flap and outside the stripped portion of intima would rapidly rise toward ventricular systolic pressure. This would afford a possibility of sudden and violent stripping of the aortic intima, supposing there had been a previous partial undermining and detachment. The writer points out that text-books on pathology and surgery give the impression that dissecting aneurysm is a familiar spectacle, whereas in some 2,500 postmortem examinations he has not met a single instance. A search of the literature shows that, although one hundred cases can be found, the condition is very rare, being encountered more frequently in museums and text-books than in practice.

Multiocular Cystic Disease of the Pancreas.—Hadley, in The British Medical Journal, believes this case to be the only one that has been reported in England. The patient, an otherwise healthy young woman, first noticed a little pain in a mass in her upper abdomen more than ten years before her death. At this time, the entire body and the tail of the pancreas were removed at operation and were found riddled with cysts, including one very large one. From then she continued well and free from all digestive or other disturbances until nearly ten years later, when she had become much wasted and had developed marked multiple neuritis involving all four extremities. Both the wasting and the neuritis continued, the former finally causing her death. Almost until the day of her death, her digestive functions were practically normal, except uncontrollable vomiting in the last few months of life. Post mortem, the remaining head of the pancreas was found to have been almost replaced with cysts similar to those previously found in the body and tail. These cysts were separated by areas of almost normal pancreatic tissue, but in neither specimen was there any trace of the islands of Langerhans. The urine found in the bladder after death reduced Fehling's solution, but at no previous time had there been evidence of sugar. The cysts seem to have arisen primarily from proliferating gland cells which formed acini, these becoming distended with the secretions of the lining cells. The condition was a cystadenoma of non-malignant type.

Recent Retrogressions in Treatment of Leg Fractures.—Sinclaire, in The London Lancet, records primitive German methods of treating fracture. The guiding principles for treatment would seem to have been lack of extension and indefinitely prolonged immobilization. The majority of cases were treated on a trough-like metal back-splint with foot-piece, the splint being of the same length in every case. It was the wounded man's

misfortune if he received no posterior support to his fracture, and due entirely to the fact that he had been so misguided as to incur a fracture at a higher level on the thigh than the splint would reach to. Apparently the continuation of hostilities was sufficient indication to persevere with this immobilization of the limb without extension, as the patients wounded in March were, when released, still in the same state of splinting as those whose legs were broken in October. One enthusiast seemingly tried an original method of extension on some of the cases. A sharp-pointed rigid metal hook, shaped somewhat like a note of interrogation, was put into the anterior surface of the tibia, with its straight, unpointed end lying in the long axis of the bone and directed towards the foot. Another of these hooks was passed in the opposite direction through the anterior superior spine of the ilium. A rope working over a pulley with a buckle at the end was attached to each hook to establish the extension.

Specific Treatment in Influenzal Pneumonia and Other Acute Infections.—Wynn, in The London Practitioner, gives the result of injecting a mixed vaccine of pneumococci, streptococci and influenza-bacilli in 107 consecutive hospital patients during the first five days of the illness:

The doses given were as follows:

Adult man, 80 to 100 million of each.

Adult woman, 60 to 80 million of each.

Child 12 to 14 years, 40 to 50 million of each.

Child 2 to 3 years, 10 to 20 million each.

Patients inoculated during the first day —These numbered 28.

71.4 per cent had a normal temperature within 24 hours and all recovered.

Patients inoculated during the second day—The number in this group was 23.

47.8 per cent obtained a normal temperature within 24 hours of the injection. There was one death.

Patients injected on the third day—Twenty-two cases.

In 50 per cent the temperature fell to normal within 24 hours. There were two deaths.

Patients injected on the fourth day—Twenty cases.

In only 30 per cent did the temperature fall to normal within 24 hours. Half of the patients required a second injection. There were five deaths.

Patients injected on the fifth day—Fourteen cases.

In 35.7 per cent the temperature reached normal within 24 hours. There were ten deaths.

The writer believes it possible to abort cerebrospinal fever in a similar manner, by the use of vaccines at an early stage, and quotes two successful cases.

It is remarkable that theer was no clinical evidence of a negative (apophylactic) phase.

"For all indefinite aches and pains Tongaline is rarely given without the most beneficial results."

"Tongaline is always efficient for the relief of pain resulting from excess of uric acid."

"Tongaline promptly rids the system of any and all sorts of poison, making it an ideal eliminant."

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DEATH FROM DIPHTHERIA—THE REASON.*

By Archibald L. Hoyne, M. D., Chicago.

Very recently in a neighboring state a number of people ate olives. There was nothing especially unusual about that fact in itself, but several of those who ate the olives died. Death caused by the eating of olives naturally attracted wide attention and press reports of the occurrence were given marked prominence. No doubt most of you here saw the item referred to and were curious enough to read it. Had you found that one or two children choked to death on olive pits your surprise perhaps would not have been so great. But when you learned that death was not due to strangulation, perchance you wondered what the explanation for so unusual a circumstance to be.

Now the subject of this paper is not olives but diphtheria. Nevertheless the contrast and our mental attitude is interesting. A few people die after eating olives, and we are deep in thought as to the cause. Yet several hundred individuals die of diphtheria, and the mortality reports are accepted as a matter of course. But why? Have we not for the ordinary diphtheria case a positive cure in diphtheria antitoxin? Have we not in antitoxin also an absolute preventive which is effective temporarily when when administered at the time of exposure? And have we not too the toxin-antitoxin mixture by means of which an active immunity may be established which will protect children for many years, or at least during the period of greatest susceptibility? From any standpoint whatsoever, is there anything more we could wish to learn regarding a disease than we do actually know concerning diphtheria?

Furthermore, we have our state and city health departments constantly striving, by various means of publicity, to keep these facts in the minds of all. Likewise, every effort is made to give assistance to both the general public and the physician. There are free laboratory examinations and culture outfits to be had for the asking. There is free antitoxin and free hospital care for those who require it.

In the city of Chicago we have but one type of diphtheria in which death may be excusable. This is, of course, the laryngeal case where a broncho-pneumonia so often crushes out the life of the patient, even though an intubation may have temporarily preserved it.

And yet what do we find? For the first eleven months of this year there have been in Chicago 531 deaths from diphtheria. Of this total number 146 occurred in the Municipal Contagious Disease Hospital, and of these latter 57 died within 24 hours of admission. In other words, these 57 were moribund when the hospital received them.

Why then, may we ask, is our diphtheria mortality so high? This question was partially answered through an investigation of 500 diphtheria deaths, which was made by the Chicago Health Department about two years ago. This inquiry disclosed that the responsibility for the loss of life was about a 50-50 proposition between the parents and the attending physicians.

We are all aware of the frequency with which parents fail to recognize the seriousness of an illness in a child. And this omission is particularly evident as respects diphtheria. For there may be little or no elevation of temperature at the onset. No chill or convulsion is often encountered, and slight complaint may be made. Children with marked diphtheria membranes may be found playing about the floor during the first few days of the disease. Consequently unless the larynx is involved, when we expect to have a croupy cough, there is little in the child's symptoms to cause alarm. Nor should it be forgotten that a patient with a pronounced diphtheria membrane on the tonsils or even over the entire pharynx will often respond to the question—"have you a sore throat?"—"no, not at all." It is easy to understand, therefore, why the physician is often called too late to stay the hand of death whose grasp is already too strong to be shaken off.

Added to the preceding facts there are other reasons for augmenting the death toll. For there are a variety of sects, some of which recognize no knowledge except that which they themselves claim to possess. And it does appear to be particularly strange that one sect, organiza-

*Read before the Stock Yards Branch of the Chicago Medical Society, December 11, 1919.

tion, denomination or whatever name you care to give it, privately, if not publicly, which is made up for the most part from an unusually intelligent class of society, should hold in total disregard all that science has taught in our profession. The very word science when linked with medicine they seem to abhor, and yet the same word "science" adorns their churches.

However, every death from diphtheria cannot be charged up against the parents. Far too often the physician is called in ample time to save a life, yet fails to seize his opportunity. Sometimes we hear of a physician making a careful examination of a child's chest and perhaps discovering a few rales, for which a cough medicine may be prescribed. The doctor feels he has done his duty, but he either failed to look in the mouth, or if he did so, his view was not sufficient to disclose a membrane situated in the tonsillar cripts or along the posterior pillars. Again, the physician may be summoned because the patient has a marked nasal discharge. Possibly and probably a careful inspection of the throat is made. There is no false membrane. The pharynx may be deeply injected, but it is clear. Is nasal diphtheria considered? Very rarely. It is much more likely the diagnosis will be "a bad cold in the head."

In scarlet fever diphtheria is a common complication regardless of the views expressed in some of our text-books. But do you think that every physician looks in the throats of his scarlet fever patients? By no means. He sees the eruption of scarlet fever. He knows he is dealing with scarlet fever, and he is satisfied. Moreover, a membrane in the throat of a scarlet fever patient should never be regarded as simply "a scarlet fever membrane." And a profuse nasal discharge in such a case should never be attributed solely to scarlet fever. Consider these conditions as of diphtheretic origin immediately, and treat them as such if you wsih to save many patients whom you would otherwise lose. Furthermore, every scarlet fever patient should always have nose and throat cultures made at the earliest possible moment regardless of the condition of the air passages.

There is another error which is very common in connection with the diagnosis of diphtheria and is unquestionably the cause of the disease attaining an advanced stage of development in many instances. The physician waits for the laboratory to make the diagnosis instead of using his own knowledge to reach the proper decision. In diphtheria the laboratory should be taken advantage of for confirming the diagnosis not making it. Determine your own diagnosis on the clinical evidence, and then exhaust every necessary facility of the laboratory to prove you are right or wrong. Suppose you administered antitoxin when first called to your patient, and eventually you decide such action was unnecessary. What of it? No harm has been done, and if you follow this plan you may save five out of ten patients who otherwise might be lost. Perhaps you object that under such circumstances the patient's premises might be wrongly quarantined, and such action injure your practice in the neighborhood. But consequences of that kind need not occur, for it would be unnecessary to report the case as diphtheria until the laboratory approved your suspicions.

The objection to waiting for a laboratory diagnosis in diphtheria is very apparent. If this disease is suspected and cultures taken, it will probably be at least 12 hours before the results of examination are reported. Twelve hours' delay in giving antitoxin means valuable time lost. But suppose your laboratory report states "no growth" or "contaminated." You must get another culture, which means from 12 to 24 hours' further delay, and your next report may read "negative." You don't see your case for two or three days after that, and then a "hurry call" comes. You rush to the bedside and find your patient in a desperate condition, with every clinical evidence of diphtheria in an advanced stage. And your conclusion is that you don't care what the laboratory reported, you are going to give antitoxin anyway, and give it at once. The proper decision has been made, but why didn't you make it in the first place instead of waiting till the child is at death's door?

Our experience with diphtheria is practically the same at both the Cook County and Municipal Contagious Disease Hospitals. Moreover, it is likely that all similar institutions vary but slghtly in their experiences along this line.

At the Municipal Contagious Disease Hospital from January 1 to December 1 we have had under treatment 1,728 diphtheria patients, among whom there were 146 deaths, or a mortality rate of approxi-

mately 8 per cent.

In this series of 146 fatal cases 57, or more than 33 1-3 per cent, died within 24 hours of admission. That is, the doom of these 57 was sealed before they left their homes. Among the total number of deaths the youngest was 2 1-2 months, and the eldest 37 years. 91 per cent of all deaths occurred in children under 10 years of age, 7 per cent were under one year, and 9 per cent over 10 years. 63 2-3 per cent of the fatal cases were under 5 years of age, whereas 84 per cent were between the 1st and 10th year. The sexes were almost equally represented in this mortality list, 72 being males and 74 females. The average duration of the disease at time of admission to the hospital, among the fatal cases, was the 11th day. The histories show that only 26 of the 146 were received prior to the 3rd day of the illness. Furthermore, the history of onset for many of these 26 was far too brief to fit the clinical picture presented.

In view of the large number of advanced cases admitted, we consider our mortality rate low.

25 E. Washington St.

THE ROENTGEN RAYS IN THE TREATMENT OF MENSTRUAL DISORDERS.*

By James W. Hunter, Jr., M. A., M. D., Norfolk, Va.

In the early days of our work as roentgenologists we were limited in our scope of therapy to the skin and to certain structures immediately underlying it. We realized that, in order to achieve any results, a certain amount of erythrema must be produced and, further, that there was so much absorption of the rays by the skin that a destructive dermatitis would arise before a sufficient dosage could be given to the deeper structures. With this in view, Williams (1) in 1905 proposed a sort of teleroentgenotherapy, thinking thereby to obviate the tremendous difference in the absorptive index. But the increased distance prolongs the treatment to such a degree as to render it rather impracticable.

A little earlier Pfahler (2) had proposed the use of the leather filter; yet the fact remained that, although larger doses of the rays could be applied without the production of an erythrema, the increased amount of tissue to be penetrated produced a corresponding amount of absorption.

It may be said, however, that Pfahler (3) was the first to suggest the use of the filter. He devised a holder and experimented extensively with various substances. He found that silver emitted the soft rays while leather absorbed them. This, naturally, suggested itself, as it was the nearest medium to be obtained resembling the human skin; and, be it said, that even to this day leather is extensively used. A little later aluminum was suggested as a filter and still later the use of the cross fire method. This offered a means of deep roentgen therapy and was immediately adopted in the treatment of the internal lesions.

If we add that it had already been observed that the Roentgen-rays have a selective action upon glandular tissue, smooth muscle tissue and the organs (4) of reproduction, it can be readily seen why the gynecologist turned his attention to the new therapy. The roentgenologist at once became the rival of the surgeon. They discussed the proper methods of treating fibroids, carcinoma of the vulva, uterus, etc. It is only lately that both have recognized their dependence upon each other. The gynecologist has found that he is not an expert roentgen therapeutist, while the roentgenologist must confess, truly and without shame, that he knows little of gynecology save from what he learned in college and in his hospital internship. It has become a matter entirely of team work. We are mutually dependent and it is upon such mutual support that the best results can be and are obtained.

In the treatment of menstrual disorders it becomes our duty first to ask ourselves to what class of cases is the roentgen treatment applicable. This must be found by a collaboration and a review of our work. Much good can often be done young adults, but it is not easy to cure them. Thus we have the recent case of Mrs. C. referred by Dr. N. G. Wilson.

Mrs. C. aged 24, married at 14. 3 children. Partial oophrectomy one year ago. Has had considerable menstrual difficulties with profuse bleeding and in spite of a thorough curretage at the hands of one of our best surgeons, is but little improved. She was treated abdominally on March 18th, 1919, and two weeks later the rays were applied over her back; but she has failed to return for further treat-

*Read before the Medical Society of Virginia, Richmond, Va., October 30, 1919.

ment, although she has had no skin or other complications. Dr. Wilson tells me that she is now somewhat better, though she still suffers at the menstrual periods, which are prolonged over several days, with an excessive flow.

It is quite probable that no permanent relief could have been obtained in Mrs. C's case; but, even then, does it not seem better to give the Roentgen-rays or radium a thorough trial, than to revert to the other alternative of unsexing a woman scarcely out of her teens?

Again, a cause of dysmenorrhoea other than that due to a diseased endometrium, must often be sought. Manifestly, the Roentgen-rays cannot be expected to help a trouble caused by a displaced or flexed uterus. In the case of Miss B, aged 38, referred by Dr. Charles R. Grandy on January 12th, 1916, with a history of excessive flow and no relief from a curretage, no relief was had from a treatment by the Roentgen-rays, although it may be said that the patient became so ill that she could not return for further treatment. Miss B. called again in June, 1919, and, while she informed me that she was now well and that no relief had been obtained from my treatment, she was good enough to say that a pedunculated fibroid had been removed subsequent to her visit and that this had been entirely overlooked by the first surgeon.

There is also a class of neurasthenics, which seem to baffle the skill both of the gynecologist and the roentgenologist. It is a class of women in the early thirties. They seem to suffer with some endometrial involvement and are relieved but slightly either by the surgeon or roentgenologist. They are anaemic, they emphasize the amount of blood lost and, in spite of warning, they continue marital relations. Of these I have treated one.

Mrs. W. referred by Dr. F. S. Hope. Thirty-two, one child. Complains of excessive and continuous menstruation, has had recent curretage, but no relief, quite anaemic and neurotic. First seen November 13, 1916, and treated through the abdomen; two weeks later through the back. Again treated January 12th, January 31st, February 12th, February 26th, August 27th and September 3rd, 1917. Some cessation of the excessive bleeding and an interval of relief as long as three months. The excessive loss of blood was, however, checked, the patient gained in weight, and was much benefited, though a permanent menopause was not produced.

To these conditions of early age, displacement and flexion of the uterus, submucous and pedunculated fibroids and essential neurasthenics, it is well to add that menstrual conditions arising from specific cervicitis or endometritis or carcinoma must not be treated by the Roentgen-rays alone. In the case of early age, we must admit that a radical removal of the uterus or ovaries is a thing almost criminal and only to be suggested or contemplated as a last resort and that the skillful use of the Roentgen-rays may tide the patient over and allow her to recuperate. The various flectures and displacements must be first overcome by physiological operative procedures. Specific disease of the uterus or cervix is to be treated as that involving other parts of the body; and carcinoma, only by the most thorough and radical operative procedures, supplemented by the liberal use of the Roentgen-rays or radium.

This then brings us to the crux of our discussion. In their own sphere the Roentgen-rays are almost all powerful. The cases most applicable are those, whose trouble is confined almost entirely to the endometrium and muscle tissue and who have passed beyond 35 years.

Case 4, referred by Dr. Lomax Gwathmey. Mrs. L, aged 37, 4 children. Complains excessive flow, especially at menstrual periods; curretted but with no relief. Seen April 29th, 1915, and treated over the abdomen and through the perineum. Considerable difficulty at next menstrual period and then no menstruation for twelve months. Since then menstruations have been regular and the patient continues well.

Case 5. Referred by Dr. Kirkland Ruffin, Mrs. B, 34, widow, 2 children, saleswoman in bakery. Flowing twelve years; no relief in spite of curretage and other treatment. Considerable headache, etc. First seen January 24, 1916, and treated over abdomen. Two weeks later treated through the back. Considerable flow and quite ill at the next menstrual period. Complete suppression of menstruation for twelve months. In January, 1917, return of former symptoms much aggravated. Again treated through abdomen, February, 1917. As before hypermenstruation and illness at next period. Since that time menstruations have ceased and patient remains well, though she still suffers from headaches.

Case 6. Referred by Drs. Lomax Gwathmey and Charles Parrish. Mrs. X, aged 45, one child, caeserean. Suffers intense pain at menstrual periods, especially in back. In spite of her age, however, there had been no signs of a beginning menopause. Seen by me on March 5, 1917, and treated through the abdomen. Three weeks later treated through the back. Menopause ensued with all of the usual symptoms of flushes, suppression of flow, etc. Six months later Mrs. X called at my office to say that she was completely relieved.

I have reported these cases at some length, as they are quite typical of what may be expected under the new treatment and because I have been able to follow them. In cases like those of Mrs. B and Mrs. R, aged about 38, suffering from excessive flowing at the menstrual periods, in spite of currettage, both were promptly relieved of their symptoms, but, as I have been unable to follow them, I shall make no comment, though I gathered from each of them about six months after their visits to my office, that they remained well.

Some constitutional symptoms, other than those connected with the difficulties of menstruation, may be expected as the result of the new treatment. We may look for an autointoxication with malaise and even vomiting. Lange (5) and Jones (6) considered this as the direct result of an effect upon the deeper tissues. Lange thought it a possible acidosis and suggested the administration of soda and alkaline drinks (e. g. Vichy) as a remedy. Pfahler (7), on the other hand, has steadily maintained that this is the result of an ozonation of the air by the electrical currents and has sought to see that the patient breathes nothing but fresh air. In my own work I have tried to combine the teachings of both. I have tried to have the roentgen room well ventilated through open windows and fans and at the same time have administered soda and Vichy. But the results from the drug treatment have been so disappointing that I have ceased to employ the soda and Vichy and have merely insisted that the patient remain in bed for a day or two in a room fully ventilated on a diet restricted to food plain and moderate in quantity.

Some effect may also be expected on the skin as the result of the roentgen irradiation. In spite of the precautionary filter, which we shall presently mention, some tanning may be expected. Following the advice of Dodd, I have used his lotion. This consists of Ac. carbol, m xxx; oxide of zinc, xss; glycerin, fzj; and Aq. calcis to fz viii, and is applied to the irradiated area three times a day for two weeks. At the same time the patient is warned that she must not get too near a fire, that no stupes, water bottles or other hot applications shall be used and the hot vaginal douche is strictly forbidden. For, if these are used, or persisted in, we may expect a result destructive in the extreme. Roentgen irradiation, like the surgeon's knife, will be followed by scarring and, if the patient refuses to heed the summons, results may ensue, of which we are innocent, but of which the patient's friends shall promptly know.

Although a technique individual in almost every case has been buitl up by the various roentgen therapeutists, that proposed originally by Gauss (8) and Kronig, or some modification thereof, is the one usually employed. Upon the assumption that six areas, each receiving an erythrema dose of the Roentgen-rays, must be used in order to give a single erythrema dose at three inches below the skin, it would seem to follow that the areas treated should be in the form of hexagons. But we have also found that the use of the aluminum filter will absorb the lower or burning rays of the roentgen spectrum and that the filtered rays will have a markedly less effect upon the skin, at the same time giving us the desired therapeutic result beneath the skin. It has been found by experience that with sufficient filtration three times the usual erythrema dose may be safely administered. To be conservative, however, we try to give two erythrema doses. Thus the abdomen, being divided into squares, each receiving a double erythrema dose, allows each subcutaneous point to receive an amount of irradiation at three inches equivalent to one and a third erythrema doses ,an amount well calculated to produce a result.

The whole problem, therefore, resolves itself into a question of division into squares, filtration, dosage and time. In my own work I have tried to divide the space between the symphysis and umbilicus into three portions. This gives me the side of the square that I shall employ. Three of these areas are, therefore, assigned to either side of the line joining the symphysis to the umbilicus, care be-

ing taken that they do not overlap and that there be a small space between them. On either side of the two upper squares, two other squares are also irradiated. So that the uterus receives during its entire length six portals of entry and each ovary four. Two weeks later the back below the waist is divided into four parts (the lines of division running at right angles), each part receiving, as before, a double erythrema dose. Thus within two weeks the uterus has received the result of ten irradiations and each ovary six. Some operators also direct the rays upward through the perineum, but in my own opinion and experience the usual technique is quite sufficient.

The question of filtration may now be discussed. It has been found from experience that a minimum of three millimeters of aluminum is desirable, although most of the earlier workers employed less. In addition, it is well to employ a thin piece of leather (chamois is excellent) directly over the irradiated area. We shall at the same time protect the other skin by the use of sheet rubber, which has been impregnated with lead, or by sheet lead itself. Of late there is a tendency to employ more filtration, so in my own cases I propose to employ a filtration of at least four millimeters of aluminum in addition to the chamois, which is laid directly on the irradiated area.

To obtan a ray satisfactory for the treatment of our cases, only the modern transformer and Coolidge tube may be considered. We shall use a tube backing up a spark of as nearly nine inches as possible, which, conservatively estimated, in the great majority of machines, will actually run from eight and one-half to eight and three-quarter inches. A spark greater than this is likely to injure the tube. Such a ray, filtered as described, can be safely applied in doses of a double erythrema. Formerly we applied it for five minutes over each square, but lately we have found it better to lengthen somewhat the time of exposure, so that we now use it from five to seven minutes. We must also recollect that, to be efficient, we must apply the rays as near the skin as possible, so that a distance from target to skin of from seven to eight inches is that usually preferred.

The technique just described is that known as the intensive method. It has the advantage that it is constant in amout, easily administered and brings about the desired result in the quickest time. It may, of course, not all be given at the same time, only a few areas being treated on the same day. But, as the great majority of patients are made more or less ill by the procedure, it is best not to prolong the treatment over too great an interval. When convenient, it is probably best to extend the abdominal treatment over two days. Yet the great majority of my patients have received the whole abdominal treatment at one sitting. Two weeks later, as we have explained above, I irradiate the back. Then I wait two more weeks and, if necessary, I again irradiate the abdomen: and again the back, as before. It has been found that intervals of three weeks between treatments are generally safe, if no erythrema has developed, but, as an additional mark of safety, I feel that the suggested procedure is the best. This, combined with the use of Dodd's lotion and the prohibition of hot water or other irritants, furnishes all that we now consider best. Of course, accidents will happen and idiosyncracies develop, but for this the roentgenologist and gynecologist cannot be held responsible.

It will be readily seen that the treatment suggested above for menstrual disorders is essentially that employed in the treatment of uterine fibro-myomata, save that it is not continued over so long a period and that fewer squares are irradiated. Theoretically, it is open to the same objection, namely, that in causing a degeneration of the endometrium or smooth muscle fibres we are laying the foundation for future carcinomata. But I have yet to hear of an authentic carcinoma so produced; and we must conclude that, however sincere the objection has been made, it is one more academic than real. In my own cases, save for that of Mrs. W., I have never had occasion to administer more than two series of treatments. The patient can be accurately watched. The treatment may be supplemented or discontinued at any time. Even if we do not succeed, radical surgical methods can still be used. But in the hands of those, who have used the roentgen treatment, the results have been so happy that we feel that the experimental stage has long since passed, and we cheerfully recommend it.

As we have hinted, few roentgenologists know aught of gynecology. And as we have also hinted, not all cases of dysmenorrhoea or menorrhagia can be cured or relieved by the Roentgen-rays. Our aim is to bring about a cessation

of the flow, an artificial menopause, as it were. If the patient is young the best that can be expected will be a temporary cessation; but even then, we may tide her over and give her another hance. In case of older patients, a returning menstruation can usually be controlled by another series of treatment. In older women the menopause will be permanent. But let us insist upon a thorough gynecological examination and differentiate those cases requiring surgical intervention from those likely to respond to the Roentgen-rays. It is only by such means that we can build up a team work. And it is by this alone that we shall succeed.

I wish to thank my many friends, both medical and surgical, for the work that they have sent me and for the implicit confidence which they have placed in my judgment. It has been team work of the highest quality and, though my experience in the roentgenological treatment of menstrual disorders has been limited to less than a dozen cases, the results have been so happy that I am more than pleased with the work. This is in most cases tedious. The number of areas to be irradiated, the extreme tension of both operator and patient, all have their little drawbacks. But "the end justifies the means" and I heartily and sincerely commend the roentgenological treatment of menstrual disorders to the earnest consideration of the profession.

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(1) Trans. Amer. Roentgen Ray Society, 1905.

(2) Philadelphia Medical Journal, Feb. 14, 1903.

(3) Archives of Physiological Therapy, Nov., 1905. American Quarterly of Roentgenology 1906-7, 57, 72.

(4) Alberts-Schonberg, Muchener Med. Wschchr., 1903, 1859. Brown and Osgood, Archives of the Roentgen-Ray, 1904-5, 213.

(5) Journal of the American Med. Assn., 1913, lxl, 556.

(6) American Journal of Roentgenology, 1918, v, p. 32.

(7) American Journal of Roentgenology, 1918, v, p. 5.

(8) Gauss and Kronig: Munchener Medizinische Wochenschrift, 57, p. 1529. Holding: American Journal of Roentgenology, vol. 1, p. 59.

THE PRO-CREATIVE FUNCTION OF WOMANHOOD, AND ITS CONSERVATION.

By Dr. H. S. Lott, 308 Masonic Temple, Winston-Salem, N. C.

This is the day of conservation of forces. Function is the soul of the human economy, giving to each organic structure the power of procreation, and the spirit of perpetuation of its kind. Surgery, in its highest aim means not to distort anatomic relations, and pervert or abolish functional activity; but rather to harmonize the one, and restore or awaken new life in the other.

Physiologic anatomy is very delicate in its mechanism and very sensitive in its service; and in no organic structure, or its product and results, is this fact more beautifully or forcefully demonstrated than it is in the pro-creative organs of womanhood.

Let us consider them for a moment, and get a mental picture with the glow of health upon it. (And in painting this picture, gentlemen, the thought is not that we do not know about it; that it exists, and that it is true, but rather that in the aggressive nature of our work today, and in the perfection of its toilet and its technic, we forget its vital import; just as we forget the vital issues of our own lives sometimes.)

Beginning with embryonic life, the evolution, and development of these organs is a very important feature; wherein faulty involution, and failure in resorption of formative, and enveloping, membrane, starts a constricting and immobilizing cycle, which may be perpetuated, and intensified, by subsequent occurrences, with a very natural sequence of the abolition of function.

In the virgin, before the menstrual cycle has begun, and also before attacked by either trauma or infection, a pear-shaped uterus with a normal forward inclination, swinging between the bladder and the rectum on its vaginal and ligamentary supports, and thus forming the body of the "bat" whose outspread wings, on either side, are of so much interest because of the beautiful part they play in the process of pro-creation. Nestled within the broad ligaments, which contribute to the make-up of the outspread wings, the ovary lies, quiescent and expectant, awaiting the responsive clasp of the delicate fimbriae, so wonderfully arranged at each terminus of the Fallopian tubes

which form the inviting and receptive channels both of ingress, and of egress, between the uterus and the pelvic and abdominal cavities.

The uterus and its position are such as to invite travel, both in and out, along the Fallopian tubes, and the lining membrane, with its ciliae waving beautifully like a field of golden grain, such as to encourage the migrating spermatazoa in search of the factor essential to vital development. This factor, furnished by the ovaries at periodic intervals, and, I believe, most freely just after the menstrual epoch, finds its way into the uterus by way of the Fallopian tube, into whose channel it is taken by the clasp of its fimbriae. In the normal woman the tubes are always patulous; the ciliae of their lining membrane waving to and fro and favoring the normal currents; while the terminal fimbriae when the woman stands erect, are not engaged in spasmodic clasp of the ovary, but "float free, like a fish's fins in water." How delicately beautiful and how delicately sensitive is this mechanism, and how very easy it is of pervertion, through both pathologic and surgical agencies; and in doing repair to these structures, the question is not: Will the patient withstand the procedure? but, will normal conditions be restored, and normal functions retained?

This picture consists of normal conditions, with normal and recurrent turgescence and retrocession of the menstrual wave; and at this period also, of the ovary quietly maturing and throwing off its product to be caught within the clasp of the outspread fimbriae of the tube and sent on its journey to the uterus; there to find the vital element essential to its life and full development, or failing, to be lost. Before maturity and before the marital relations are begun, the exanthemata play the greatest part in distorting these organs, and often mar the physiologic picture we have painted.

Among the exanthemata with disastrous sequellae, measles, scarlet fever, and small pox rank foremost. Lawson Tait, of Birmingham, England; first recognized and gave an account of the hurtful results of these disorders in young girls: their invasion of pelvic cellular structures, with resulant destruction of tubular cilliae; sealing of tubes, with loss of lumen, and matting of fimbriae and ovary in an agglutinated mass; this condition, with its accompanying chain of symptoms, among which dysmenorrhoea, with, sometimes menorrhagia, is most marked, continuing throughout young womanhood, and even throughout the menstrual life, with certain abolition of function and a fixed penalty of sterility. These infections from within, in this period of life, are unavoidable, we count on their presence, and can better tolerate their results; others from without, equally fatal to function, are also viewed in less charitable light. Among them, and I speak of it first because of its additional danger of having the endorsement of a few members of the profession, is the use of the Stem Pessary, in virgins. Think of it! the invasion, the trauma, and the infection, to say nothing of the distortion and abnormal position of the uterus afterward. Emmett has told us, long ago, that such "treatment"—along with dilatations and application of chemicals, is much more often hurtful than helpful.

The Stem Pessary, to me, has always seemed both an insult to the patient, and a menace to her safety.

With puberty comes the menstrual wave, accomplished in minor cycles of turgescence and of retrocession; and the awakening of the dormant pro-creative organs. Each month completes its cycle. Do we think of this enough? De we realize the important part it plays, in the physical economy of young women? Like the ebb and flow of the ocean wave, the blood currents come and go. Twenty-eight days complete the cycle, and the uterus is the storm center. Under normal conditions, when there is no clog or break in the mechanism, nature performs this function without serious disturbance in young women, but remember the delicacy of the structure, and the central guidance of nerve control; and remembering, can it be a cause for surprise that conditions from within, of mental origin, and conditions from without, of climate, of environment, and of physical stress, interrupt these vital currents, and either break or shorten the cycle, with marked, or even distressing results? Therefore, painful menstruation, with abolition of function in its wake, and its cause in the virgin, is of such complex nature as to make each case a law unto tself; and its approach, and its treatment, a matter for profound thought and most careful investigation.

With the marital relations woman enters the second important era of her life, and in this era also, infection is the greatest danger that confronts her. Childbirth

is the fullfillment of a physiologic function, and should be accomplished, in most cases, by nature's forces and without accident; but let us remember that trauma to some portion of the maternal outlet, may occur within a very wide range of degrees, from the slightest rent in the mucus lining of vagina or cervix, to a complete laceration through muscular structures involving the sphincter as well; and also remember, that infection from without, gains access just as readily as through the most extensive destruction of vaginal and cervical wall.

Therefore, every childbirth is a surgical case, and should be conducted with equal care, precision, and cleanliness to that attending the toilet and technic of any surgical operation; and until this is taught, and fully realized by the Obstetrician, post-partum infection, with all of its disastrous sequellae will continue to follow in its wake.

Manifestations of post-partum infection may also exist in varying degrees of intensity, and it is not only the more severe type, in which symptoms are so evident, and so distressing, that "he who runs may read," and from which the woman may barely escape with her life—that is fatal to subsequent functional activity of her pro-creative organs.

In a former paper, presented to our State Society, and also to the American Association of Obstetricians and Gynaecologists, and published in the transactions of each, under the title of "Post-puerperal Sterility, its Cause and Surgical Treatment," the mild post-partum infection, with its distressing group of symptoms, and its equally certain abolition of function, was carefully portrayed.

The patient comes with a chief complaint of "pain;" and pain, mark you, is the distress signal of pathologic foci. We get the history of a "labor" several years ago, with no distinctive feature save a "chill" within the limits of the first week of the puerperium. This chill, followed by fever for several hours causes no alarm, and the convalescence, in other respects, seems perfectly normal. The mother, after the usual "rest in bed"—which is never long enough—will resume her care of the household, and as a rule, will nurse her babe throughout the allotted time. The menses reappear, but the rhythm is broken, the interval being either too short or too long, with some discomfort amounting to pain, during the flow, which is either too scant, or too free; while a moderate leukorrhea, just after the menstrual epoch, is the rule. In a general way the health is fairly good, and yet not up to normal. The appetite is fitful and the food is not digested well, thus bringing the usual sequence of constipation and loss of weight. The years go by, with no conceptions: while blended with the pain and the clinical picture here portrayed, and in a subconscious way perhaps, is a wonder at such break in the cycle of normal marital relations.

Physical examination gives us tenderness per Vaginam—on the right, and on the left, of the uterus, while this organ swings free and in a normal position. From above, deep pressure just above the left ovary gives pain, though it is not always marked; while on the right we find the usual ulcers confirming the feel from below, of a tender ovary, and also the reflex epigastric discomfort ever coincident with involvement of the appendix; such involvement being the rule in these cases.

Years ago, Lawson Tait and Joseph Price, developed the late pathology of tubes and ovaries, and established the justice of their removal. Today our chief advances lie in early recognition, and preventive measures. This condition, the result of infection, will not clear up, time only emphasizing the agglutination of structures and perpetuating the abolition of function Therefore it only remains to suggest a method promising to relieve symptoms, and restore function—this promise comes, I believe, through surgery; and is made possible only by the perfect toilet and precise technic of today.

Now again remember, if you please, that while in the dysmenorrhoea of virgins, a sequel to the exanthemata, and the post-partum infection of maternity, the prime cause differs in kind, its pathology, and its results are the same. Agglutination of fimbriae, sealing them to the surface of the ovary, with closure of each Ostium Abdominale, lessening of the tube, and destruction of its ciliated lining; quite sufficient in degree, to establish, and perpetuate, the abolition of function.

After the usual preparation for an abdominal section the approach may be made through either a free right rectus, or a median incision; preferably median, unless the patient be a thin subject with a shallow pelvis. The appendix is sought and removed, with the freeing of any bands that may favor normal rotation of the caecum. At this juncture the head

should be lowered, as free exposure facilitates both investigation and handling of the appendages. Then with the uterine furdus as a starting point, and tracking down to the right, and to the left, of the pelvis, each Fallopian Tube is palpated to its limit; and each, in turn, with its adjacent ovary brought into view. The fimbriae, if welded to the surface of the ovary, is gently freed, entire, and with very gentle manipulation normal conditions restored to this delicate fringed extremity. If pain during menstruation has been marked, suggesting obstruction to normal currents through the Fallopian Tube, each fringed extremity may be carefully surrounded by gauze, the ostium abdominal exposed, and a filiform bougie passed through the lumen of the tube to the limit of the uterine cavity, thus freeing any possible occlusion and establishing its patency. Finally, after careful restoration of the appendages to their "home" in the pelvis, the patient is lowered, and a half pint of normal saline solution introduced into the cavity just before closure of the abdominal incision. This last step is important, the solution assuring that the fimbriae float free for just a little while, until the edges are slightly seared and do not become again agglutinated to the surface of the ovary.

Results, in the few cases in which this surgical procedure has been used, have been gratifying * * * The pain points have disappeared, and the patients walk, and lie on either side with comfort. The appetite has returned, and digestion is good, with a resultant gain in weight; while of prime importance is the fact—that menstruation has resumed its normal cycle without discomfort.

308 Masonic Temple.

Dr. Rupert Blue—President Wilson did not reappoint Dr. Rupert Blue as Surgeon General of the United States Health Service. Judging from the comments in the various medical journals throughout the United States this was a great disappointment and it carries with it a feeling of regret especially in the southern states because Dr. Blue was born in North Carolina. He was very proficient and very popular and very acceptable to the public of the United States. It is a mystery so far as the writer is concerned why the President did not reappoint him and especially to North Carolinians.

DISCUSSION OF THE WORKMAN'S COMPENSATION ACT FROM THE STANDPOINT OF AN INDUSTRIAL SURGEON.

By Dr. H. B. Everett, Station C, Memphis, Tenn.

In discussing this subject I will necessarily have to confine my paper to the act as passed by the general assembly of the state of Tennessee in April 1919, as this is the only act that the writer has had experience in handling this class of cases. The Tennessee act provides under section 25, as follows:

Section 25. Be it further enacted, That during the thirty days after the notice required by Section 23 of this act to be given the employer or his agent, the employer shall furnish free of charge to the injured employe such medical and surgical treatment, medicine, medical and surgical supplies, crutches and apparatus as may be reasonably required, and the injured employe shall accept the same; and at the option of the employer he may furnish the same free of charge to the injured employe for such length o ftime after the expiration of the thirty days as the employer may elect, and the employe shall accept the same. Provided, however that the total liability of the employer under this section shall not exceed one hundred dollars, and, provided further, that the pecuniary liability of the employer for such services rendered the employe shall be limited to such charges as prevail for similar treatment in the community where the inujred employe resides. All cases of dispute as to the value of such services shall be determined bv the tribunal having jurisdiction of the claim of the injured employe for compensation.

In case death results from the injury, the employer shall, in addition to the medical service, etc., referred to above, pay the burial expenses of the deceased employe, not exceeding one hundred dollars. If the deceased employe leaves no dependents entitled to claim compensation under the provisions of this Act, the employer shall not be further liable to any one for compensation on account of the accident except for the medical service and burial expense herein provided for

The injured employe must submit himself to the examination by the employer's physician at all reasonable times if requested to do so by the employer, but the

employe shall have the right to have his his own physician present at such examination, in which case the employe shall be liable to such physician for his services. The employer shall pay for the services of the physician making the examination at the instance of the employer. And in case of dispute as to the injury, the court, may, at the instance of either party or of its own motion, appoint a neutral physician of good standing and ability to make an examination of the injured person and report his findings to the court, the expense of which examination shall be borne equally by the parties. If the injured employe refuses to comply with any reasonable request for examination, or refuses to accept the medical service which the employer is required to furnish under the provisions of this Act, his right to compensation shall be suspended, and no compensation shall be due and payable while he continues such refusal.

In all death claims where the cause of death is obscure or is disputed, any interested party may require an autopsy, the cost of which is to be borne by the party demanding the same.

Any physician whose services are furnished or paid for by the employer and who treats or makes or is present at any examination of an injured employe may be required to testify as to any knowledge acquired by him in the course of such treatment or examination as same relates to the injury or disability arising therefrom.

If in an emergency or an account of the employer's failure or refusal to provide the medical care and service required by this Act, the injured employe or his dependents may provide the same, and the cost thereof, not exceeding one hundred dollars, shall be borne by the employer; provided, that the pecuniary liability of such employer shall be limited to the charges for such service as prevail in the community where the services are rendered. All cases of dispute as to the value of such services shall be determined by the tribunal having jurisdiction of the matter of compensation to the employe.

You will notice that Section 25, as quoted above that the Act provides for medical attention during the first thirty days after the accident, and provides for such surgical and medical attention, that is, including hospital fees, providing this does not exceed the sum of one hundred dollars. The Act also provides that the patient must accept such medical and surgical attention as the employer sees fit to furnish, this does not give the patient the right to select a physician of his own choice, but must accept the services as provided by the employer. You will also notice that the employer is not bound for a larger fee than one hundred dollars, but may at his own election provide medical or surgical attention for the employe for a longer period than thirty days or for a greater amount than one hundred dollars, right at this point let me emphasise the necesisty of obtaining a strict order for an additional expenditure, for hospital or drug account or for surgical or medical fees amounting to more than this amount. In as much as the Act provides that the employer shall procure an insurance policy to protect the employes, and as a guarantee to the insurance department, that the requirements under the Act shall be met, and the employer through the insurance company shall bear the burden, and the insurance company as a rule does not feel that they are called upon for a greater amount of expenditure than provided for in the Act, as they figured and place a premium on their risk as provided for in the Act, but in many cases when there is danger of the loss of life or a limb or some permanent disability they are willing to exceed this amount if called upon before the services or hospital bills are made, and they so authorise the same. In the event that the employe elects to furnish his own physician at his own expense, the Act further provides that the employer shall have the right at any time he desires to have the patient examined and a report made to him by the physician of the employers choice. The Act also provides that in the event of death, where the cause of death is obscure or disputed that any interested party may require an autopsy, the cost of which is to be borne by the party demanding same.

The clerical work that is necessary in this class of cases is quite burdensome at times, in as much as you have to make an immediate report, and are very frequently called upon for subsequent reports, this necessitating quite a bit of correspondence as the claim department does not have the patient before him, and it is necessary to, as near as possible, picture the case in hand that he may have to deal with. The Tennessee Act provides further that the charge for this class of cases shall not exceed the usual fees

that are charged in the community in which the accident happens. But a great many companies have an idea that the high cost of living does not apply to the physician, and expect him to do the work at a much smaller charge than he gets in private practice, as they clai mthis is one hundred per cent collection, and have no loss in the way of bad accounts, that we can afford to do this work for less money. But I believe that the sooner the physicians gives these parties to understand that they expect their fees in these cases, as they do when they are doing work for people that are able to pay, reasonable fees for their work, the better it will be for them. As a rule physicians are entirely too slack in their business relations with their patients as well as others who they do work for, and it has been my experience that the industrial plants who pay the insurance companies a fair premium for carrying their risk, do not want the physician or surgeon that will do the work for less than he charges other patients for the same class of work, as they say that a man that would be dishonest in handling his business affairs and attempting to pad his bills to make up for the loss in these charges would be dishonest in other business, and he certainly would not have the same weight as one that attempted to treat all parties alike, and I do not believe that the average industrial plant is a party to the attempt of some insurance companies to try to bargain their business off to the cheapest man. As I was discussing this matter once with one of the managers of a plant whom I do quite a bit of accident work for and he stated to me that he insisted that the men that were working in his plant have the same medical attention that he would expect should he be placed in their stead. It is very unfortunate that all of the industrial plants could not look at thi smatter in this same light. I believe that it is our duty that when we have an employe injured, and we are attending same, that we should give the same attention to all we attend, alike, and to do this we certainly have to charge for our services. I further believe that the amount for medical expenditure under the Workman's Compensation Law is far too low, in a great many cases. I had this brought to my attention in the last few days, by a man that does not do a very large practice of this nature, who states that he had a patient sent to him, he did not know whether he was to be taken care of under the Workman's Compensation Act or not, and the concern that called him simply asked him to take care of the patient. This was a very serious accident, and the man was in the hospital something like three months, and when the bills were forwarded to the employer, he stated that a prorata part of the bill would be paid on a per centage basis. This is another case in which the doctor should have had a clear understanding with the man whom he was doing the work for, as the patient knew nothing about the arrangement, further than he was working under the Workman's Compensation Act, and was protected. The doctor had rendered his services and obtained good results, the hospital had furnished the board and nurses, and of course were out their money on keeping the patient, and now they are confronted with the question of collecting the bill, after all this had been rendered. Had there been a more definite understanding as to who was to pay the bill it would probably have saved considerable trouble. I believe that a very large per cent of this trouble could be eliminated by having a more thorough understanding as to the payment of the bills.

It seems to have been the custom for the adjuster in these cases to call upon the doctor very frequently for subsequent reports, and also opinion as to amount of time lost, or the amount of permanent disability that exists in these cases, and the physicians have been inclined not to furnish the information very readily, as they say they are not interested in the settlement of the insurance company in any way, as they are working for the Industrial plant, and have no connection whatever with the insurance adjuster. This of course is not a correct way to look at this matter, as the adjuster is only a representative of the industrial plant, and should have the courtesies that are due him, and should be given any reasonable information pertaining to the case. I believe that there should be a reasonable charge made for this information if requesting special written statement, or the leaving of the physicians office to furnish the information.

There is another class of cases that has not been touched upon in this paper that is very important. That is, as a rule the employer has no record of the employes past physical condition and many times an old deformity such as a hernia, or the partial loss of eye sight, or many other

diseased conditions that would be very hard to determine whether they existed before a accident happened, or not. I have had several of these cases recently, and it is a very difficult matter in many cases to say positively that the condition existed before the injury was received. The only precaution that I see for the employer to take is to have his employes examined and a careful record made before he enters upon his duties as an employe, then to be re-examined at intervals, of, say, once every six months or oftener if the employe is off from a continued spell of illness, or receives an injury while off duty, later returning to work. This class of cases would entail quite a little expense on the industrial plant to keep such records but I believe they would be paid well for their expense in the end. The fees for this class of examination should be carefully worked out by the physicians and a reasonable fee charged, sufficient to justify him to give his time to make a careful physical examination, and record the same.

I believe that if we would follow the following rules we would seldom have any trouble in adiusting of fees afte the case if well attended:

1st. To obtain a specific order to do the work and charge the account to the employer.

2nd. Give the employer a prompt, full report (keeping a copy in your files.)

3rd. Arrange for your drug bill, hospital and other expenditures to be charged to the company and forwarded to you, so that they may check up, and properly charge up the account by the bookkeeper or office attendant or yourself, so that you may, at any time know when the account is approaching the limit as provided for in the Act.

4th. Give a subsequent report that you may be called upon for by the company, or their duly authorized agents.

5th. Charge your fees upon a reasonable basis, such as you would a patient in ordinary circumstances, and making a specific charge for each service rendered, that is so much for first aid, or any subsequent operation that becomes necessary, and charges for each specific visit, so that any time you may furnish itemized statement if called upon.

6th. Make all your final reports upon the dismissal of the case and mail to the company, including your bill, and all other expenses.

I have followed the above rules several years before the Workman's Compensation Act was passed, and since July 1st, 1919, have followed them very carefully. I have quite a number of industrial plants that I do all their surgery, and have not had but very little trouble in getting my bills paid very promptly, I do not mean the minimum fee, but the fee that is charged under ordinary circumstances to a patient making an average salary, in fact it is seldom the case that any bills are returned unpaid. There are occasions that the adjuster will call at my office for some information that is not embodied in the report, or if the fees are a little high he will ask the reason for same which is given. Practically all of this information can be given by the office attendant, as they keep the records, as to the amount of expenditure, they can furnish him this information satisfactory without the surgeon having to be bothered about it. I believe for the good of all parties concerned that the information obtained by the surgeon in these cases should be furnished the employer so that he may adjust these cases satisfactory. I have discussed this matter with a number of adjusters on different occasions, and they do not want a report that is other than exact description of the injury let it be for or against the employer, as they can not handle the case satisfactory to themselves or to the patient or employer until they have this information.

An Unusual Booklet.

A new and very attractive pocket booklet on "Influenza, Colds and Catarrh," has recently come to our notice. It presents in concise, readable form some interesting facts regarding the history and etiology of the disease, and also regarding preventive and curative treatment, with hints as to dosage, etc.

This booklet may be read with profit by every physician and druggist in the country. Typographically, it is exceptionally good, and the illustrations are interesting. Copies may be obtained free of charge by writing to H. K. Mulford Company, Philadelphia, Pa.

The Charlotte Sanatorium, Charlotte, N. C., is beginning to erect a new $50,000 addition to that well known institution. It is to be a duplicate in construction of the present building, tile floors, etc. Every room will have a private bath with a lying in and children's department.

BIOLOGY AND PATHOLOGY OF SYPHILIS: A NEWER VIEW.

By Dr. E. C. Thrash, 602-5 Candler Bldg., Atlanta, Ga.

The phenomena here reported are based largely upon observation made in the laboratory, at autopsies, and upon syphilitic individuals.

Since the discovery of the treponema pallida there has been a doubt as to whether it is animal or vegetable, but recent investigations, especially on the part of Noguchi, has settled this question in favor of the latter structure, since he has grown the organism anaerobically, in which growth it forms colonies assuming the appearance of bacteria, produces infection directly, without having to pass through intermediate stages, as do animal parasites, and produces toxemias characteristic of vegetable parasitic infections.

In discussing the mode of entrance of the offending organism the well known postnatal portals will be dismissed as being too trite to require attention, but prenatal luetic infections, from the writer's viewpoint, have been based, by most syphilographers, upon incorrect principles and he will attempt in the onset to outline in a few words the logical way in which syphilis, from a biological standpoint, is not inherited. Nothing can be inherited except what is transmitted by the parent cell through its biophores to its offspring and these can be only the various physical, physiological and psychic attributes contained in the original cell. In other words one developing entity cannot inherit the attributes of a cell from a different species. Were this not true there could be no constancy in life processes. All infections imply the activities of two life forces—the invading parasite and the invaded host, each one inheriting its own characteristics and none of those of the other.

No informed person would claim that an infection could be inherited, yet all will say that syphilis is an inheritable disease. This question was settled as to tuberculosis many years ago, but the same student who states that tuberculosis is not inheritable will say that syphilis is, although it should be clear to any thinker that either both are or neither one is, for if one infection is inheritable all are. Whether the spirochaete attacks the spermatozoid before it reaches the ovule, the ovule before fertilization, the embryo in early uterine life, or the foetus just before parturition, the result would be the same—a prenatal infection and not an inheritance.

The next statement which I shall make is as great a departure from the beaten paths of pathology as the one foregoing and I shall endeavor to establish its correctness. The male cannot transmit syphilis directly to his offspring and the mother must be the intermediate host. Syphilis develops after the fertilization of the ovule, and, not only after its fertilization, but at a time when it has reached a period of development that puts it far in the lead of its invading enemy so that it may live despite the ravages of this invader. The argument which I shall make to substantiate this statement is as follows: First, any infection to be transmitted directly from the male must enter the ovum with the spermatozoid. The spirochaete is about twice the length of the long and more than three times the length of the short diameter of the body of a spermatozoid. The tail having no procreative power, its sole properties being to propel, and being discarded as the male element enters the ovum, is not to be considered.

After a moment's thought one must conclude that a spermatozoid, wending its way up the vagina into the uterus, and out into the Fallopian tube with a spriochaete run through its body would have about the same chance of out-stripping its millions of fellows, beating them to the goal and fertilizing the ovum, as its completed handiwork, man, would have in competition with his fellows in his efforts to procreate with a fence rail run through his body while his opponents were all well, young, strong and vigorous.

Furthermore, it is estimated that eighty billion spermatozoids miss their mark where one consummates the purpose for which it is designed. Granting that there would be one hundred spirochaetes in each discharge of semen of a sufferer from acute syphilis, which semen contains over two hundred millions of spermatozoids, this would give only one chance in two million for the spermatozoid containing the spirochaete to fertilize the ovum even though it did not suffer a handicap of a spiral thrust through its body.

The lower down the scale of life one looks the more prodigally wasteful one sees nature in her effort to procreate—example, the billions of pollen granules

required to fertilize a single grain of corn, a grape or a melon. Granting though the treponoma should be as fortunate as his more highly differentiated brother, the spermatozoid, and hit the mark as often, the above numbers would have to be squared, which would extend the possibility into inconceivable infinity.

Moreover, should the spirochaete enter the ovum with the spermatozoid, the former would begin to develop and multiply as rapidly as the cells of the fertilized ovum, the result of which would be a toxicity and a mechanical disturbance resulting in an inevitable blast.

Let us now consider the course that the spirochaetes apparently take in reaching the foetus. Colle, long since, made the statement that no syphilitic child could infect its mother. It is easy to understand why this is true—the mother is immune, and has become so through having been infected by the father. No doubt, the majority of syphilitic infections, like tuberculosis are only academic and not clinical. We know that most cases of tuberculosis never reach a degree of activity sufficient to make the disease apparent. The patient established an immunity against the germ before he began to suffer in consequence of its invasion. Most syphilitic infections probably terminate similarly, and the mother receives an academic or slight clinical type of the disease against which she soon creates an immunity, yet, as in tuberculosis there are symbiotic relations developed between the invading germ and host in which a truce is established, the germs continue to live in the mother's tissues but producing no destructive changes.

Some of the biological traits of the tubercle bacillus and the spirochaete are similar, but they differ in that the latter is motile while the former has no inate power of motion. This characteristic accounts for so many prenatal syphilitic children and so few that are tubercular. The reason is, that both spirochaetes and tubercle bacillie are carried mechanically by the mother's circulation to the maternal side of the placenta where they land into a lake of blood in which the chorionic villi are floating like rootlets of a medusa. These villi are covered with a loose soft epithelial structure, the cincitium, through which all foetal nourishment must pass from the mother's blood and through which the spirochaete, by its rotary motion, can bore with ease, entering directly into the blood vessels of these villi which are on the foetal side of the placenta and forms a part of the foetal circulation. Through these villi innumerable spirochaetes find an open gateway into the blood structures of the child, whereas the tubercle bacilli not possessing motility and penetrating power are continuously whipped around in the mother's circulation.

Corroborating the foregoing, all prenatal syphilis is found predominating in the liver, whereas a tubercular foetal liver is almost unknown. This structure, as we know, contains the first capillary circulation which the spirochaetes reach after they get into the foetal blood. They are not able to pass easily through this area, consequently they find lodgment here and set up infection. This phenomenon could not take place until after the formation of the placenta and the establishment of foetal circulation, and syphilis has been as truly contracted by the child from the mother as if it had developed a chancre upon its lip by nursing at a syphilitic breast. The difference is, one is prenatal, the other postnatal.

II.

From a pathological standpoint, the division of syphilis into the three well known classical stages is incorrect. It should be classified under two heads, the period of local invasion and that of systemic infection. The post-syphilitic stage, where the spirochaetes have either disappeared or become inocuous, having left their scroll in permanent destructive changes upon the nervous system, might be termed either the third stage or retain its name of meta- or para-syphilis, meta being the more expressive of the two prefixes.

The local invasion is characterized either by the classic chancre ,the papule, or the cryptic invasion where no local lesion is produced.

The spirochaete has a revolving motility which gives it certain powers of penetration. When it is deposited upon the mucosa or moist surface, should this germ, in its meanderings, find an area where the surface cells are weakened, abraded or sufficiently softened for it to penetrate, the tissues are entered and active processes are begun both on the part of the body cells and the germs, the outcome of which is the development of a chancre. The propagating centrally located organisms surrounded by systematically arranged specific somatic cells, con-

stitute a definite histological structure called a granuloma. This entity consists histologically of actively virulent organisms at the center, walled in by epithelioid cells developed from the morbid partially poisoned endothelial cells of the adjacent capillaries, migratory lymphoid cells, serious exudate and fibroblasts, the latter being developed from the weakened partially destroyed intoxicated surrounding fibrous tissue structures stimulated to mitosis in their effort to repair an injury. The granuloma will be discussed more at length later.

The surface cells in the incipient chancre being furthest removed from the nutritive plasma of the blood, the first to be attacked by the invading germs, and being separated from the underlying cells by serous exudate are the first to succumb to the ravages of the enemy. This causes in the beginning a slightly abraded area which is already becoming indurated. The destructive changes begin at the surface, the cell disintegration continues downward ino the underlying tissues with the germs remaining just within the area of the living cells. The induration is brought about by the massing of the three types of cells already mentioned, together with a marked thickening of the vessels terminating around the ulceration.

This process is a beneficient one in that it is nature's effort to hold these whirling, penetrating, poisonous bacteria within circumscribed grounds, preventing them from migrating into adioining fields, or entering the lymph spaces thereby producing a systemic infection. In some instances she succeeds in this, and the healing of the chancre may terminate the syphilitic process. On the other hand, the germs may be so virulent that their destructive processes may enable them to penetrate this wall, pass out into lymph vessels where they find lodgment in the nearest lymph gland. This marks the beginning of the invasion of the interior. While this is taking place the local tissue destruction continues until a deep indurated ulcer results and remains until sufficient immunizing forces are established on the part of the host to cause its healing. Repair occurs only after the germs have invaded the system and stimulated the building up of sufficient antibodies to check the progress of the disease at the initial focus of infection.

When the germs begin to migrate from the initial lesion, either passively through the lymph or actively by their own motile power, they set up a decided thickening and fibrosis of the lymph and blood vessels which they invade or approach. This is another effort of nature to close the gateway through which they are entering. She does this so successfully in some instances that all of the lymph vessels leading from the infected area become blocked and produces the well known condition of indurative oedema. The induration is produced by the thickening and fibrosis just described. The oedema is caused by the exudate from the blood vessels not being able to pass back through the lymph vessels on account of this indurative occlusion. As they free themselves from this imprisoned state, either through less obstructed vessels or otherwise, they invade the nearest glands, thus beginning a systemic infection. Often the hard cord like indurated lymph vessels leading from the ulcer to the inguinal glands can be felt under the skin along the dorsal surface of the penis.

The papule is simply a modified chancre and the same pathological processes take place in it as do in the latter. The difference is that the germs penetrate more deeply before they begin to build up the granuloma, the surface cells do not die early, but become hardened with the other surrounding tissues. The spirochaetes find their way into the lymphatics and set up systemic infection before extensive ulceration takes place. This is a midground between the syphilitic ulcer and the cryptic invasion.

Cryptic invasion occurs when the mucous surface is soft, permeable or broken. It offers no resistance to the invading germs, but allows them to pass directly into the lymph vessels without producing a local lesion, as is the case of the foregoing instances, The resultant systemic infection, a description of which follows, develops in the same way in all three of these types.

III.

We have now lodged the spirochaetes within the lymph glands nearest the original point of entrance and the systemic invasion has begun. The glands begin to proliferate cells and establish a resistance against their foe as soon as invaded. The nodes thus infected form a nidus for rapidly multiplying bacteria. These germs move along the lymph channels by their own propelling force aided by the lymph current until the whole chain of glands along their course is laden with multiply-

ing spirochaetes. Hoards of them flow freely in the larger lymph vessel as the latter approach the subclavian vein. Germs are emptied into this vein in countless numbers, from which source a heavy shower of specific microorganisms is poured into the general circulation, where they reach every organ in the body which has a capillary circulation.

At this point the second stage becomes clinically manifest by the systemic treponoma shower producing an eruption upon the skin. In order to discuss further pathological changes it becomes necessary to describe more fully granulomata as applied to tissue defense. There are four principle granulomatous diseases and two or three minor ones. The more important ones are tuberculosis, syphilis, actinomycosis and blastomycosis. These diseases are the ones the pathogenic germs of which, for specific reasons, cannot be successfully attacked by phagocytosis, and are therefore non-pyogenic. In view of the fact that they cannot be attacked by white blood cells, nature must provide other means of defense. Pursuant to this end she establishes a barricading method of protection by building a cell wall around the enemy. This walled in mass of germs is the granuloma mentioned in describing incipient chancre. There is difference, however, in the syphilitic and tubercular granuloma in that the latter is more dense, therefore sooner dies and caseates at the center, and is not so far reaching into the surrounding tissues. The blood vessels become degenerated and disappear in the centrally compressed area resulting in starving, poisoning, autolytic, softening, and caseation.

The defensive somatic cells in a syphilitic granuloma on account of the motility of the spirochaete have to play a more wide-open game, and therefore it is more loosely constructed. The cells have to disseminate themselves deeply into the surrounding tissue to checkmate the migrating spirals. In consequence of this there is a less dense massing of epithelioid and lymphoid cells and fibroblasts, with an incomplete destruction of the blood vessels, but the toxines produce a thickening and induration which exists not only in them but in the lymphatics and other surrounding tissues. These cells may finally become so massed, the vessels which supply them with nutrition so much occluded, and the toxines produced by the multiplying germs so abundant, that the central portion of this granuloma will also die. This is not a suppuration but a tissue death, which undergoes softening from autolytic action and becomes infiltrated with migratory cells and constitutes the syphilitic gumma. Many of these may merge together producing quite a large quantity of fluid substance simulating pus. This colliquified area may either become attenuated, encysted, and absorbed, the destroyed structures being supplanted by fibrous tissue infiltration; it may become infected with pyogenic germs and suppurate; or it may find its way to the surface by following the path of least resistance and be discharged. Gummata vary in appearance, consistency, activity of development, and harm to the host, proportionally to the latter's resistance, and the quality of structure in which the former develop as skin, bone, muscle, areola tissue, liver, brain cord, glands, etc.

We recall that the spirochaetes had just invaded the venous circulation when we diverted to describe general granulomatous infections. Both tuberculosis and syphilis invade the system through the lymph channels into the veins. The question then arises, why do the tubercle bacilli have a predilection to the lungs and other organs of terminal circulation while the spirochaete chooses the more vascular structures with collateral circulation. The reason of this is the motility of the one and the lack of this attribute in the other. When the tubercle bacillus reaches the lung through the venous circulation, it is either in clumps where it will plug a capillary, produce a microscopic infarct around which is soon built up a tubercle or the individual germs may pass through these capillaries where they are whipped around in the blood system, until they are disintegrated or find lodgment in other terminal organs and establish similar lesions. They move mechanically and must rest wherever they lodge.

On the contrary, when the spirochaete reaches the lung, it either passes through into the systemic circulation or gets blocked in a capillary. In case of such blocking it does not produce an infarct but migrates by rotary motion between the endothelial cells and lands in an air vessicle where it either is thrown out with the mucus or makes its way again between the endothelial cells and lodges in another capillary where it is again swept into the blood stream. In this way the shower previously described sprinkles spirochaetes into every organ of the body.

When the germs reach the systemic capillaries, they by their own propelling force, leave the capillaries and enter the dense surrounding structures which is more impervious than the lungs, and where they can move with less freedom than in the latter organs. They lodge in these tissues and build a colony, nature aiding them in producing a granuloma. The skin being tougher and more resistant than other organs entangles the germs more successfully in its meshes thereby producing myriads of minute granulomata which produces the well known macular eruption.

The body structures when this influx takes place are so overwhelmed with poisonous bacterial products that anti-bodies are formed in great quantities, and a resistance is soon established whereby these myriad granulomatous foci are checked in their incipiency leaving small brownish, elevated, indurated, papular areas upon the skin. In some of these the germs may lie dormant for quite a period, in others they may be completely destroyed and the lesion healed, while in a few they may continue to progress slowly, producing the well known serpiginous syphilides and other varying skin lesions. In the deeper structures of the body, germ activities may become so great that they are only feebly checked by immunizing forces and the result is a gumma. So a syphilide and a gumma are only granulomata in different degrees of progress.

The rise and fall of granulomata varying in their virulence from the feeblest macule or syphilide to the most malignant, confluent gumma ,developing at any period of luetic activity in all parts of the body from the hair follicle to the heart, represents kaleidoscopic changes in the pathologic complex we call syphilis. There is only one ever varying stage liable to manifest any phase of the disease at all times, and lasting from the time of the systemic invasion until the somatic cells conquer or death closes the scene.

Should the somatic cells conquer late, after destructive changes have become so great in the brain and cord that the parenchyma cells are destroyed and the function of these organs hopelessly impaired the result is metasyphilis, and might be designated the third stage.

VAGINISMUS, WITH REPORT OF CASES.*

By Junius F. Lynch, M. D., Ex-President and Honorary Fellow Seaboard Medical Association of Virginia and North Carolina. Former Vice-President Medical Society of Virginia. Late Lieutenant Colonel, Medical Corps, United States Army.

This curious condition is, fortunately, rare. There is nothing I know which causes more discomfort, more unhappiness or produces graver results, from a social standpoint, than does this. Unattended and unremedied such cases invariably go on to profound neurasthenia and hypochondria, and result, generally, in separation and divorce. Under proper operative treatment the result is always good.

In all of these cases the woman is young and neurotic; the nervous condition is the result, and not, as is generally thought, the cause of the intensely painful contraction of the muscles.

There is usually a local lesion which accounts for the symptoms and close inspection will, in the great majority of cases, reveal a fissured anus, a fissure of the fourchette or the vulvo-vaginal orifice; the remains of a ruptured hymen which has become irritated by constant attempts at coitus; or irritations of various sorts about the vagina and vulva due to traumatisms of early married life. It is, also, not uncommon in women who have contracted the habit of masturbation.

In many cases there will be no indications of a local lesion of any kind, but there does exist a hyperasthesia of the vagina which makes sexual intercourse excruciatingly painful. In such cases there has probably been a local irritation which has healed over, but the sensitiveness remain sand the dread of coitus cannot be overcome.

Examination should always be made under anaesthesia; in the vast majority of cases it is impossible to make even the most superficial examination without it. The examination should also be made in a hospital in order that the necessary surgical treatment can be proceeded with without the necessity of administering another anaesthetic later on.

There is a case reported in which preg-

*Read at meeting of Seaboard Medical Association of Virginia and North Carolina, at Norfolk, Va., December 2, 3 and 4, 1919.

nancy occurred after the husband had had intercourse with his wife while she was profoundly under the influence of morphine, and after the birth of the child at full term the vaginisms disappeared, as it usually does after childbirth. This, however, does not always happen, for in a case occurring in the practice of one of my colleagues, the vaginismus persisted after the birth of a child at full term.

The treatment by forcible dilatation or by gradual dilatation with glass plugs is a fallacy, and no dependence can be placed in the local application of cocaine or in internal medication. There is only one remedy which can be used with any assurance of success and that is surgery. The operation is very simple and it is effective—it is a waste of time to attempt the use of any other means. It is designed to diminish the power of the muscles involved in the spasmodic contraction, and, as described by Hirst, consists in making an incision in each vaginal sulcus extending an inch or more up the wall of the vagina, the two incisions meeting externally at the fourchette; from the fourchette a single incision is made in the mid-line outward and posteriorly to the anus. The incisions are then sutured transversely. By this very simple surgical procedure the most intractable cases can be permanently and completely relieved. The following cases are typical:

Mrs. M., age 23. General conformation good, and appearance healthy. Menstruated first at 14, and has been normal and regular since. Married six months, but her husband has never succeeded in having intercourse with her. Is very nervous and inclined to be "weepy." Examination attempted in my office; impossible to touch vulva without producing muscular spasm. Examination under ether in hospital showed no local lesion; vagina and vulva normal in appearance. Hirst operation performed. Patient made a good recovery and has since borne a child.

Mrs. C., age 24. Married four months. Apparently healthy, but neurotic; has always been so. Menstruation has been normal since its appearance at 13. No sexual intercourse since marriage because of pain and dread of it. No attempt to examine patient was made until she was put on the operating table and etherized. A very small fissure of the fourchette was found which, no doubt, accounted for the symptoms. A Hirst operation was done and she has been permanently cured.

Altogether I have had four cases and in each case the result following operation has been good, and when last heard from they were all leading normal sexual lives.

No work I have ever done has given me more satisfaction than this.

OBSERVATIONS ON THE WORK OF AMBULANCE COMPANIES IN ACTION.*

By Dr. Thomas V. Williamson, Norfolk, Va.
Urologist to Protestant Hospital.

War surgery was based on the belief that all wounds were infected wounds and should be treated as such. Debriedment or removal of the lacerated area was the accepted rationale of wound management. It was found that wounds would unite primarily if excision of the lacerated tissues could be practiced within a short time after the injury occurred. Necessarily the longer the wound was unoperated the greater the infection. Warmth, proper sitmulation, care of the skin were the essentials in the management of gas cases. Exhaustion could not be handled properly in the field in the thousands of pronounced cases while acute febrile condition due to cold and wet imperatively demanded hospital attention.

Logically it follows that transportation of the sick and wounded from the battle line to the hospital was one of the most vital problems of the medical service. Col. Page of the regular army aptly stated that the ambulance company which could clip minutes off the time it took to transport the wounded from the place where they could not be treated to a place where they could be treated would save more lives than the greatest surgeon in the world.

It fell to the lot of the ambulance company, gentlemen, to perform this important function. But in the rush of the advancing battle line, it may readily be seen that medical troops assigned to line organizations, being required to keep in close contact with their units least they lost them, frequently could not administer to the stricken as fully as might be. Many contingencies—the great number of wounded, lack of supplies and equipment, want of a suitable place to work and the rapidity of the advance, etc.—made it impossible for regimental and battalion units

*Read before the recent meeting of the Seaboard Medical Society held in Norfolk, Va.

to render the service that was necessary before transportation of the sick and wounded was possible. This duty fell to the medical troops following the wave of the advance. So it will be seen that the ambulance company was not only concerned with transportation but wtih pure medical problem sas well.

With the wealth of material which accrues during several months of active campaign it is rather perplexing what to discuss in a paper of this kind. I shall touch briefly on the different phases of the work in the order of the numerical frequency of the cases dealt with.

Wounds.

At the front it was impossible to deal with wounds in a surgical sense. Conditions under which dressing were done and the limited means for surgical procedure at our disposal permitted only the crudest of technic. Most of the dressings were applied by medical enlisted men before the soldier was removed from the field. The enlisted man became so proficient at first aid that it was often unnecessary to remove the dressing before the patient was evacuated. This is especially true of all gun shot wounds, as there was but little trauma or hemorrhage as a rule. The men became adept in applying emergency splints to fractures. They learned to utilize many different articles which might be available, such as bayonets, gun stocks, sticks and grass. In many instances apposition was so admirable that the cases were sent on to the rear without interference by a medical officer.

Gun shot wounds were simple to handle but this is not true with wounds inflicted by fragrants of sharpnel and high explosive shells. The size of these fragrants range fro mmere particles of steel sand to masses weighing several pounds. They were rough, jagged and sharp and usually produced a wound which was the sort of lacerated incession, if I may be permitted to call it such. The extent of such a wound depended upon the size of the missile and the angle at which it struck the body. The outstanding primary results of shell wounds were hemorrhage and shock. Bleeding was profuse when the wound was on an extremity or where the missile struck the body with a glancing blow.

Many men died of hemorrhages where they fell while hundreds were litterly weltering in blood when medical aid reached them. Indeed, the laboring medical troops often looked somewhat like butchers so bloody did they become from the streams which flowed from their wounded comrades.

Many shrapnel wounds were inflicted from knife like shards and resembled a stilleto prick at the point of entrance. One could tell that internal damage had been done by the steady flow of blood from the wound even if no other symptoms were present.

I saw one case where the needle like shell fragment had penetrated both testes and remained insitu holding them firmly together. I picked out several other shards which had penetrated a short distance into the testicle. One man had a small needle like fragrant, which had simply penetrated the scratal integment, but he had no idea of the relative severity of the wound and thought he was ruined for life. His dismal howls brought tears of pity from all who heard him. When I pulled the fragment out of the skin and ordered him to rejoin his regiment he doubted my sanity. He had not looked to see what damage had been done but was acting on the supposition that the scrotum and entire contents had been shot away. He went back to his outfit rejoicing

Many shell wounds were multiple and frightful in extent. The horror of handling them is inconceivable and one wonders how even the magnificent stamina of youth could carry them over the long road to the hospital and back to health again, in such great numbers as actually did survive.

Shock was both mental and surgical. The soldier had perhaps been under terrific strain for many days and when a shell burst in his immediate locality wounding him at the same time or when he was struck by a bullet in a barrage of these missiles it is natural to suppose that the element of mental shock should be mingled with that of surgical shock. The quieting dose of morphine and proper stimulation were the methods followed here.

The army never put up a dressing suitable for large shell wounds. To the Red Cross must be given credit for the shell dressings. It was large, soft and absorbed large quantities of blood, while at the same time all needed pressure to control hemorrhage could be applied to it. It was by far the best dressing we had while in the service.

Compound fractures, just as they are in civil life, were fully the worst and most

distressing cases for ambulance men to handle. During the first day of the advance of the 29th Division on the east bank of the Meuse we had no Thomas splints. The wounded suffered horribly on the long trip to Verdun. Their trip over the rough road brought forth cries of pain and anguish. The drivers of the ambulances said it was maddening and they dreaded the thought of having another experience like it.

When we located a supply of Thomas splints all this ceased. The patients complained a little when traction was applied to break up overriding of the fargments but they were soon easier than at any time since the wound had been received. The trip back would be made without complaint while the surgeons at the clearing station at Verdun stated that many of these cases were in such good condition that they were sent on back to an evacuation hospital just as they had been received from the front. I cannot recommend the Thomas splint too highly. These splints should be at the disposal of every physician who does fracture work throughout the land.

From the standpoint of bleeding the most difficult of all wounds to treat primarily were those caused by fragments of German hand grenades, called, on account of their shape, potato mashers. These fragments were thin, slightly curved and sharp. They flew through the air with a wihrling motion which motion was often continued after the missile had penetrated the body, thus litterly cutting out a ball of tissue. The wound bled as though it had been done by a razor.

The fields and paths in German territory around Verdun were littered with these things. Every dugout was full of them, and even traps were prepared with them so that on being moved many exploded. Not a few burst by being tramped on in the fields. A squad of eight men was carrying ammunition one day within fifty yards of our dressing station. One member of the party trod upon a hidden potato masher which exploded wounding every man in the squad. These men were seen within a minute after the accident occurred and they were litterly bathed in blood by that time. Several died while it toook some time to stop the flow of blood in the others before they could be evacuated.

The wounded were divided at the dressing station into three classes:

First: Those slightly wounded who could be returned to the firing line.

Second: Those needing hospital attention who could be transported to the rear other than by ambulance.

Third: Ambulance cases.

It is remarkable indeed to note how few men sought to have the firing line on the pretext of slight wounds in the first weeks of the Argonne campaign. If anything, they were inclined to remain at the front when they really belonged in a hospital. As the weary days dragged on this attitude changed a little. The constant fighting, thirst, cold and wet had an undermining effect on the stamina of the troops so that in the end many of the slightly wounded seemed glad that they were hit and were going back to a warm resting place. We utilized all availavle means of transportation to send these men back and were fortunate enough to get them off with but little delay.

The ambulance cases gave us more concern as it was often extremely difficult to keep up with the steady influx of patients from the lines. Every conceivable form of transportation jammed the roads rendering traffic slow. The roads were rough, gashed with deep ruts and were sometimes unpassable for hours on account of concentrated shell fire. The drivers ambulance worked in three eight-hour shifts so the cars were never idle. These boys made a remarkable record for service and if it was humanly possible to break through they would do it.

Every now and then some poor fellow would be brought in who palpably could not survive the long trip back so he would be made as comfortable as our means permitted until the end came when he could be buried beside the dressing station.

Gas.

There was no uncertainty in dealing with the men wounded from missiles. But the element of uncertainty and guess work entered when gas cases presented themselves. Of course when it was clarly patent that a man was really gassed he was treated by first aid and immediately sent to the rear. But gas had such a tremendous effect on the morale of men. It was so treacherous and so insidious, so sneaking in its manifestations that many soldiers imagned that they were gassed when they were not while on the other hand others were gassed who did not know it.

Medical experience detected almost ev-

ery form of malingering known until gas came into use. But here the malingerer made it difficult for the medico. It was desperately hard to say to a man that he was not gased when he claimed to be. The symptoms were often delayed so that the surgeon was taking an awful responsibility in refusing to send these malingerers back. The loss of time might mean taking the chance for life away.

The surgeon could not permt himself to think too much in the terms of the individual, he was compelled to think more in the terms of the company or regiment or division. Many mistakes were made. Some men were probably kept in the fighting when they should not have been while time showed that hundreds were sent back to hospitals who belonged at the front. But gas took a heavy toll of life anyway, so the principle was to err on the side of humaneness rather than to direct an unintentioned cruelty. The patients who presented symptoms of gas poisoning were rushed to the rear. Nothing could be done for them at the front but to relieve what distress we could.

That large and constantly growing class as the days of battle passed which showed no immediate symptom, were herded together and sent back with the slightly wounded.

Shell Shock.

So much has been said about the amazing manifestations of shell shock that it merits a word here. To my mind judging from first hand observation there were two distinct types. One was a typical neurosis in which all nervous controll was lost while the second was neurosis complicated by more or less concussion.

The great nervous strain under which men who were going into battle labored became more tense as each long march brought them nearer and nearer to the front. Excitement was intense and high pitched. The roar and crash of all sizes of guns from the busy little seventy-five up close, through the miles of close packed howitzers and rifles of all calibres on back to the more cumbersome and deliberate fourteen-inch naval monster far in the rear made an unceasing dim and thunder. The snarl of allied shells far overhead hurtling toward the enemies' country mingled with the vicious scream and snapply burst of those being sent in return. The saturnadia of noise continued for days until the minds of men were numbed, and the nerves were taut and jerky. Under such conditions any sudden and unexpected noise or any new or additonal horror caused the less stably balanced to give way under the strain and lose their self-control. This was the purely neurotic type and it was pitiful to see but the second type was even worse. A shell would strike near a soldier and burst. The concussion would be terrific and sudden. His head would be wracked with pain while probably the body would suffer much the same agony that one experienced as a boy when a firecracker exploded in the hand. These symptoms combined with the neurotic element made a grave combination. If the first type could be induced to go back to duty the patient often gained control of himself in short order. But the breakdown was many times too complete for this so they were sent hospitalward along with the poor devils in the second class.

Exhaustion.

Exhaustion played havoc with the troops in the field. There was little chance for malingering here. Hundreds of men staggered into the dressing stations and fell from exhaustion. The pulse would be racing away up while the temperature would often be as low as 96 deg. Farenheit. Warmth and food were administered to them and they were sent on back to rest. The estimation of the losses from exhaustion is startling. The 32nd Divison on one forced march lost almost 50 per cent of the division from exhaustion. Although these casualties were only temporary, the fighting efficiency of troops was often sadly impaired by them for the time being.

Acute Febrile Conditions.

One other class of cases very frequently met with was acute febrile manifestation from exposure to cold and wet. The symptoms were typical and not worth discussion. The temperature ran as high as 105 deg. Farenheit. The suffering these poor fellows went through must have been awful. Imagine lying for long hours cold and wet in the rain and wind shivering from fever and its distressing train of ills.

Thus, gentlemen, in a few brief words I have tried to convey an idea to you of some of the main activities of an ambulance company in the medical sense. No words of mine could portray to you the difficulties of transportation of these sick and wounded boys.

The work of the ambulance companies

was always hazardous. They often did their work under direct fire from the enemy. Any fire they used for heating water or cooking food for the wounded was apt to draw the enemy shells. Only the dimest light could be used by which to do dressing at night. No protection was to be had from the rain when such protection might beget enemy observation. Work under such conditions was often very, very crude but our purpose and mission was to do only what was absolutely necessary and to hurry our patients on back so that others could begin the task of rehabilitation while an where rehabilitation was possible.

ANOTHER VIEW OF RADIUM.

By M. B. Hutchins, M. D., Atlanta, Ga.

It is as well to state at the beginning that, in spite of claims to the contrary, there is no vast difference between the character and effects of roentgen rays and radium. Those of us who pioneered eighteen to twenty years ago in the use of X-rays, promiscuously and without control, saw many results comparable to the effects of radium to which attention is now directed. At the present time I believe the measurement of X-rays is more perfect than is the case of those from radium, though the employment of the latter is becoming something of an art.

This paper is intended in no wise as reactionary, nor is it evidence of a desire to condemn the newer thing and cling to the old. It is but fair to state that both the distributors and users of radium have been quite frank and fair in their reports, in spite of the leanings of a one-sided interest or enthusiasm; but we do not get reports of disastrous failures.

The primary objection to radium is the cost, its use in treatment consequently entailing larger expense to the patient. Many external lesions, non-malignant or malignant, yield as readily, oftentimes more rapidly, to older methods of treatment. In the field of cancer practically any lesion or growth which is accessible and which radium will cure is just as amenable to other treatments. Unfortunately, the expense of purchase frequently places radium, not in the hands of specialists, but in those of men possessing deficient or total lack of knowledge of diseases to be treated, and they have to learn by practice on patients—just as the owner of an expensive automobile is helpless compared to the mechanician who may be unable to own any machine.

I have seen it denied that radium produces burns. It does, not only of areas treated, but of the hands of those using it carelessly and frequently. Regardless of the present technic, neither radium nor X-rays are yet as controllable as are older agents. The greatest recommendation of these methods of treatment is their painlessness, the next their ability to reach and overcome cell growth beyond visibility, and finally, especially in the case of radium, the possibility of application to and into regons otherwse inaccessble.

The effects of ths substance in cancer being mainly the reason of this paper, the dominant "other view" of its action deserves consideration, as illustrated by the following instances:

Case of a man, large epithelioma over right malar bone, the right mastoid and another, gross and fungous, over the right wrist. Treatment with radium at an institution possessing large quantities. Ultimate results: Over malar and mastoid, purulent ulcers, floored with necrotic bone, ragged edged—patient sent home without advice as to cleansing or dressings. The malignant disease was probably destroyed, as were healthy tissues, but leaving necrotic, infected wounds. The mass on extensor of wrist, cauliflower like, infected, actively malignant. Radium apparently had no effect upon it—unless perhaps to stimulate.

Next case a man treated at same institution, epithelioma of naso-orbital region. Seen some months later. Massive growth around and into the orbit and eye, a thick extension across root of nose and to upper part of opposite orbit. All active, ulcerative, growing disease. Case sent away by me as incurable. Illustrating the shortcomings of radium in another direction, case of an elderly woman, late recurrence carcinoma of left groin. Many radium treatments. Resultant burns and necrosis with intensified pain, and there were present areas of liquefaction, fibrosis and active disease—as exposed at operation. I have often seen identical effects following heavy X-ray treatments.

Extension of epithelioma of left orbital border into eye. One, judged-to-be sufficient, radium treatment seemed to check the disease for a few months, then progression, infection, neglect, sepsis. Enucleation, plus weeks of infection, an explosion of septicemia—death.

Another case, enucleation of the left eye, after many orbital recurrences of epithelioma treated by older methods, and many recurrences treated in following two and a half years. Radium at intervals during the past year and a half, the last perhaps six weeks before its dramatic results. After three weeks of pain and septic temperature, the patient comes back to me expecting more radium treatment. Temperature running 99 to 102, typic septic irregularity, elevations most common following long reclining as in sleep, position favoring absorpton rather than drainage. Necrotic tissues including bone in naso-orbital arc, roof of orbit and at scattered edge points, the entire floor of orbit and roof of antrum a greenish, blackish, softish mass, bone practically disintegrated. Little pus, flow of dark serum, odor from area most offensive—gangrenous. As the dead tissues came away under proper treatment the following conditions were disclosed: A part of the orbit seemed to show healthy tissue, its roof and above a large area of exposed bone, at lower edge some spiculae; the hole into antrum as well as this sinus were comparatively healthy. During the period of sloughing there was more than one violent arterial hemorrhage. A one inch square, radium treated area left orbito-temporal region was smoothly healthy, healing rapidly. Sepsis having been controlled, the patient returned home with advice to come back for cautious radium treatment of any discovered disease—an apparent defiance of radium's destructive capacity, but in the hope that we now knew just how far to go. When seen at his home three weeks later septic temperatures had returned slightly, necrosis was progressive in supra-orbital bone, there was a small opening into frontal sinus. Condition all necrotic—there was no visible cancer.

Early in this century not only I but other X-ray workers, in our enthusiasm to tackle any case, saw many like results —"burns" to third degree, and, in reverse order, coagulation necrosis, simple coagulation, dermatitis of all degrees, and persistently extending disease.

Conclusions.

Radium, even as roentgen rays, is a valued addition to our means of combatting disease, but in many cases superior to other and older remedies only in that its application is painless. Given equal accessibility, its superorty is questionable. Whether its cost (in more than a few conditions) is justified by its effects is not fully established. In far advanced cancer one must decide if end results leave the last state of the patient better than the first. Radium has its field in dermatoses and cancer, but let us hold the soft pedal of conservatism on a too enthusiastic approval.

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EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

PHYSICIANS GIVE OUT PROGRAM

Mayor McNinch Will Welcome Members of Medical Society February 18.

Announcement of the 1920 meeting of the Tri-State Medical Society was formally made Saturday, the sessions beginning February 18 and continuing two days. The Selwyn hotel assembly room has been selected for the meeting.

Dr. A. J. Crowell, chairman of the committee on arrangements, will call the sessions to order. After an invocation by Rev. A. A. McGeachy, pastor of the Second Presbyterian church, the address of welcome will be delivered by Mayor F. R. McNinch for the city and by Dr. C. M. Strong on behalf of the profession in Charlotte. Dr. E. W. Pressly, Greenville, S. C., will respond, and then President Robert C. Bryan of Richmond, Va., will deliver the annual address.

A preliminary program of papers has been announced as follows, few changes being probable in the list that is given:

"Observations Regarding the Diagnosis of Brain Injuries"—Dr. Sharp, New York, (invited guest).

Dr. G. T. Tyler, Greenville, S. C.—Subject unannounced.

"Shall We Operate on the Acute Gall-Bladder?"—Dr. H. A. Royster, Raleigh.

"Gastric and Duodenal Ulcer"—Dr. William Scruggs, Charlotte.

"The Surgical Treatment of Gastric and Duodenal Ulcers"—Dr. A. Murat Willis, Richmond, Va.

"Intestinal Obstruction From Various Causes"—Dr. J. F. Highsmith, Fayetteville.

"Appendectomy Under Local Anesthesia—Report of One Hundred Cases."—Dr. F. S. Johns, Richmond, Va.

"The Diagnostic Value of Exploratory Incision"—Dr. D. T. Tayloe, Washington, N. C.

"Empyema of the Chest"—Dr. W. L. Peple, Richmond, Va.

"Lung Abscess With Report of Cases"—Dr. Jos. T. McKinney, Roanoke, Va. Leader of discussion, Dr. Fred M. Hodges, Richmond, Va.

"Wound Treatment as Practiced in Base Hospital 61—(Lantern Slides From Actual Photographs)"—Dr. Chas. S. Lawrence, Winston-Salem.

"The Differential Diagnosis of Primary Syphilis"—(With Lantern Slide Demonstration)—Drs. Jos. A. Elliott and L. C. Todd, Charlotte.

"The Use of Bone and Facial Grafts in the Reconstruction of Bones and Joints"—(Lantern slides)—Dr. Addison G. Brenizer, Charlotte.

"Radium, a Necessary Aid to the General Surgeon"—(Lantern Slides)—Dr. R. L. Payne, Norfolk, Va.

"A Neglected Method of Treatment for Ulcerative Cystitis in the Female"—Dr. A. P. Jones, Roanoke, Va.

"Stricture of the Ureter and Treatment"—Dr. Lawrence T. Price, Richmond, Va.

"Hydronephrosis"—Dr. A. J. Crowell, Charlotte.

"The Interpretation of Surgical Cures in the Treatment of Infection Through Environment"—Dr. J. E. Rawls, Suffolk, Va.

"A Report of One Hundred Cases of Cancer of Uterus—And Results"—Dr. J. A. Williams, Greensboro.

"A Discussion of the Treatment of Uterine Hypertrophy"—Dr. Stuart Michaux, Richmond, Va.

"Conservative vs. Radical Gaenecology"—Dr. W. O. Spencer, Winston-Salem.

"Spontaneous Torsion of the Spermatic Cord"—Dr. R. L. Gibbon, Charlotte.

Dr. R. M. Taliaferro, Lynchburg, Va.—Subject unannounced.

"A Medico-Legal Case Presenting Distinctive Features"—Dr. Beverley R. Tucker, Richmond, Va.

"The Value of Time as an Important Factor in the Successful Treatment of Narcotic Drug Addiction Disease"—Dr. W. C. Ashworth, Greensboro.

"Crime and Mental Unsoundness"—Dr. Jas. K. Hall, Richmond, Va.

"New Facts About Sciatica; Its Diagnosis and Treatment"—Dr. Tom A. Williams, Washington, D. C.

"Goitre Observations on Approximately Fifteen Hundred Cases"—Dr. Samuel O. Black, Spartanburg, S. C.

"Goitre"—Dr. Hamner C. Irwin, Charlotte.

"Hyperthyroidism"—Dr. Chauncey M. Rakestraw, Chester, S. C.

"Roentgen Therapy"—Dr. Hunter B. Spencer, Lynchburg, Va.

"Caeserian Section Indications for and Technique"—Dr. Marshall J. Payne, Saunton, Va.

"The Role of Heart Massage in Surgery with Reference to a Case Resuscitated by a New Method"—Dr. T. C. Bost, Charlotte.

"Dislocation of the Pubic Joint"—Dr. A. Robert Taft, Charleston, S. C.

"Nerve Injuries Complicating Fractures"—Drs. C. C. Coleman and John H. Baird, Richmond, Va.

"The Conservative Treatment of Compound Fractures"—Dr. George Benet, Columbia, S. C.

"Luxation and Diseases of the Sacro-Iliac Synchrondrosis"—Dr. A. Wylie Moore, Charlotte.

"Personal Observation in the Early, Intermediate and Late Treatment of One Thousand Cases of Infantile Paralysis From the Orthopaedic Surgeon's Viewpoint"—Dr. Alonzo Myers, Charlotte.

Dr. LaBruce Ward, Columbia, S. C.—Subject unannounced.

"Desensitization in Bronchial Asthma"—Dr. J. Morrison Hutcheon, Richmond, Va.

"Preventive Gynaecology"—Dr. H. S. Lott, Winston-Salem.

"Veratrum in Puerperal Eclampsia"—Dr. G. A. Neuffer, Abbeville, S. C.

"Forty-Eight Cases of Artificial Pneumothorax Treated in the Winyah Sanitarium From April 2, 1913, to June 9, 1919"—Dr. Roswell E. Flack, Asheville.

"The Chronic Dyspeptic"—Dr. D. L. Harrell, Suffolk, Va.

"Typhoid Fever From the Laboratory Standpoint"—Dr. K. D. Graves, Roanoke, Va.

"Tonsils, Adenoids Complications and Operations"—Dr. O. J. Houser, Charlotte.

"Five Foreign Body Cases, Broncho Esophagoscopy—Recovery"—Dr. E. W. Carpenter, Greenville, S. C.

"Glaucoma"—Dr. A. Burke, Norfolk, Va.

"Headaches From the Standpoint of the Opthalmologist and Oto-Laryngologist"—Dr. Elbyrne Gill, Roanoke, Va.

Dr. Emery Hill, Richmond, Va.—Subject unannounced.

"The Need for a Closer Affiliation—Beteen the Surgeon and Internist"—Dr. A. McNeil Blair, Southern Pines.

Dr. A. E. Baker, Charleston, S. C.—Subject unannounced.

"Kidney Function"—Dr. William M. Coppridge, Durham.

"The Importance of Sanitarium Treatment in Cases of Gastro-Intestinal Diseases and Functional Nerous Disturbances"—Dr. John Q. Myers, Charlotte.

"Accessory Sinus Disease"—Dr. Jno. W. MacConnell, Davidson.

"Torsion of the Spermatic Cord"—Dr. Richard N. Duffy, New Bern. Leader of discussion: Dr. Francis R. Hagner, Washington, D. C.

"Therapeusis of Exopthalmic Goitre"—Dr. A. A. Barron, Charlotte.

"Prostatic Stone of Unusual Interest"—Dr. J. H. Taylor, Columbia, S. C.

Subjects unannounced—Drs. Baxter Hayes, Spartanburg, S. C., and T. W. Jackson, Harrisburg, Pa.

"Advances in Surgery Which May Be Attributed to the Great War"—Dr. John H. Gibbon, Philadelphia.

"Operations on Harelip and Cleft Palate"—Dr. J. Shelton Horseley, Richmond, Va.

"Report of Two Cases of Large Calculi in Urinary Bladder of Boys"—Dr. C. O. Abernethy, Raleigh.

"Relation and Attitude of the General Practitioner to the Eye and its Diseases" Dr. H. S. Hodges, Charlottesville, Va.

"The Value of Chemical Blood Examinations in Diagnosis. Prognosis and Treatment of Cardio-Renal Diseases"—Drs. J. P. Munroe, A. A. Barron and H. P. Barrett, Charlotte.

"Second Attack of Meningitis After An Interval of Eighteen Months"—Dr. William Allan, Charlotte.

Dr. A. J. Crowell is vice-president for North Carolina, and Dr. E. C. Register is a member of the executive council for the state, two-year terms.

An automobile drive will be given the members of the Tri-State on the afternoon of February 18, and Dr. Crowell will give the association a smoker from 10 to 12 p. m., on the same date. Mrs. L. B. Newell is chairman of the committee on entertainment for visiting ladies to the Tri-State meeting.

A large degree of interest attaches to the meeting in Charlotte as the next president will be a North Carolina physician, and it is reported, may be a Charlotte doctor.

Medical Men's Program Issued. Tri-State Medical Association Meets Here February 18-19.—The program for the twenty-second annual session of the Tri-State Medical association of the Carolinas and Virginia, which meets in Charlotte on February 18 and 19, has been completed.

Numbers of the leading doctors of the three states will present technical papers on various subjects, in addition to several papers by invited doctors, including Dr. Sharp, of New York; Dr. Tom A. Williams, Washington; Dr. Francis H. Hagner, Washington; Dr. Thomas W. Jackson, Harrisburg, Pa.; Dr. John H. Gibbon, Philadelphia, Pa.

The first meeting of the association was held in Charlotte in 1899. Plans are being made by a local committee of arrangements, composed of Drs. A. J. Crowell, chairman; Addison G. Brenizer, J. P. Munroe, William Allan and J. R. Ashe, with Mrs. L. B. Newell to entertain the visiting ladies, for making the stay in Charlotte pleasant.

The meeting will be held at the Selwyn hotel. An automobile ride will be taken over the city after the afternoon session of the 18th, and Dr. A. J. Crowell will give a smoker at his offices that night from 10 to 12.

The officers this year include Dr. Robert C. Bryan, Richmond, president; Dr. Clifton M. Miller, Richmond; Dr. A. J. Crowell, Charlotte; Dr. A. R. Taft, Charleston, vice-presidents; Dr. R. E. Hughes, Laurens, secretary-treasurer.

The executive committee is as follows: One-year term—Drs. E. G. Moore, Elm City; A. L. Gray, Richmond; W. W. Fennell, Rock Hill. Two-year term—M. O. Burke, Richmond; E. C. Register, Charlotte; F. H. McCloud, Florence. Three-year term—W. O. Spencer, Winston-Salem; J. K. Hall, Richmond; J. H. Taylor, Columbia.

The chairman of the various sections of the three states are as follows:

North Carolina—A. J. Crowell, Charlotte, surgery; H. E. Bowling, Durham, medicine; C. M. Strong, Charlotte, gynaecology; M. L. Townsend, Charlotte, obstetrics; J. P. Matheson, Charlotte, eye, ear, nose and throat.

South Carolina—J. H. Taylor, Columbia, surgery; Robert Wilson, Jr., Charleston, medicine; W. W. Fennell, Rock Hill, gynaecology; R. B. Epting, Greenwood, obstetrics; L. O. Mauldin, Greenville, eye, ear, nose and throat.

Virginia—R. L. Payne, Norfolk, surgery; W. F. Drewry, Petersburg, medicine; J. H. Culpepper, Norfolk, gynaecology; Ben Gray, Richmond, obstetrics; C. M. Miller, Richmond, eye, ear, nose and throat.

The first meeting will be held at 10 o'clock on February 18 at the Selwyn hotel. Dr. A. J. Crowell, chairman of the committee on arrangements, will call the meeting to order, followed by the invocation by Rev. Dr. A. A. McGeachy, of the Second Presbyterian church.

Mayor Frank R. McNinch will deliver the address of welcome on behalf of the city, and Dr. C. M. Strong, president of the Mecklenburg Medical society, will welcome the doctors on behalf of the profession. Dr. E. W. Pressly, of Greenville, S. C., will respond.

The annual address of the president, Dr. Robert C. Bryan, of Richmond, will be delivered at the first meeting, the remainder of the program for the two days being devoted to technical papers, several of which will be illustrated.

For many years it was comparatively easy for the laity to purchase narcotics. This produced many habitues of opium and its alkaloids and likewise cocaine. Very drastic legislation became necessary to curb this evil. One result of this is that physicians, who have always been very scrupulous in their use of narcotics, often find it quite inconvenient to prescribe what they regard as legitimate and entirely necessary amounts of narcotic drugs, particularly opiates.

Physicians, however, are coming to realize that opiates are more or les sdispensable in many conditions where they have heretofore been considered necessary. They have been casting about for the most suitable substitutes that could be prescribed without restriction by law, that would not tend to habit formation.

In this connection it is gratifying to note the co-operation offered by Eli Lilly & Company in the way of a vest pocket reference entitled "Standard Anodynes, Sedatives and Hypnotics." In this edition there are more than ninety items mentioned which are non-narcotic, but which may be employed for anodyne, sedative or hypnotic effects. Others are listed which contain small amounts of opiates, but require a federal record of sale only. This booklet should prove very helpful to physicians generally, since it not only mentions products, but gives brief descriptions of therapeutic application and dosage. Physicians will profit by requesting copies of this booklet from Eli Lily & Company, Indianapolis.

EDITORIAL NEWS ITEMS

Dr. J. W. Young has bought the Thomas Sanitarium of Charlotte, N. C. The sanitarium formerly run by Dr. E. O. Thomas on Caldwell Street has been sold to Dr. J. W. Young who has been associated with the institution since the death of Dr. S. M. Crowell.

Dr. W. C. Sessoms, an esteemed former citizen of Cumberland County was recently stricken with apoplexy and died a day or two later at his sister's near Stedman.

Dr. Sessoms was 53 years old. He resided for the last 30 years in McRea, Ga., where he had a good practice. He returned to his old home only a few weeks ago on account of illness and subsequent death of his father.

While he resided in this section he was an honored and respected citizen.

Statesville, N. C., is to have a new hospital. Drs. Carpenter and Davis have constructed an imposing structure and suitable location in that progressing city. We understand that the hospital is fitted up with the most modern equipment throughout. This new hospital is not only an asset to Statesville but to this section of the state. It is owned and controlled by Dr. F. A. Carpenter and James W. Davis.

Dr. Carpenter is a specialist in diseases of the eye, ear, nose and throat and is well and favorably known in that section of the county. Dr. Davis who recently returned from overseas where he was surgeon for the government and is well equipped for the work will do the general surgery for the hospital. We predict for these young men success.

Resolutions of Respect—Whereas God in his infinite wisdom has seen fit to remove from our midst our friend and colleague Dr. John Gray Blount, therefore be it resolved by the Beaufort County Medical Society that in his untimely death this society has lost an esteemed and useful member, the medical profession a learned, skillful and untiring practitioner, the state an influential and patriotic citizen and his family a thoughtful and affectionate son, a considerate brother, a devoted husband and a kind indulgent father. Resolved that this resolution be spread upon the minutes of this society, that a copy be sent to the bereaved mother and wife and that it be published in the Washington Daily News and the Charlotte Medical Journal.

H. W. CARTER
D. T. TAYLOE
J. C. RODMAN
P. A. NICHOLSON
Committee.

Special Proctological Issue.—The American Journal of Surgery for February will be composed exclusively of articles devoted to the surgery of the Rectum and Colon. The following well known Proctologists will contribute.

Dr. Alfred J. Zobel, San Francisco, Cal.—Diagnosis of Anorectal Diseases.

Dr. Samuel T. Earle, Baltimore, Md.—Fistula.

Dr. G. Milton Linhicum, Baltimore, Md.—Syphilis, Tuberculosis and Cancer of the Rectum.

Dr. J. Dawson Reeder, Baltimore, Md.—Stricture of the Rectum.

Dr. Louis J. Hirschman, Detroit, Mich.—A Successful Hemorrhoid Operation Under Local Anesthesia.

Dr. Martin L. Bodkin, Brooklyn, N. Y.—Proctitis.

Dr. Lewis H. Adler, Jr., Philadelphia, Pa.—Fissure-in-Ano or Irritable Ulcer of the Anus.

Dr. David A. Kraker, Newark, N. J.—Perianal Infection.

Dr. Charles J. Drueck, Chicago, Ills.—Fecal Incontinence.

Dr. John L. Jelks, Memphis, Tenn.—The Medical and Surgical Treatments of Protozoan Infections.

Dr. Jerome M. Lynch, New York—Cancer.

Dr. E. Reissman, Newark, N. J.—The X-Ray as an aid in diagnosing Ilio Cecal Valve Insufficiency.

Dr. Edwin Beer, New York—Aseptic Amputation of the Rectum.

Dr. T. C. Hill, Boston, Mass.—Methods of Examination in Diseases of the Rectum and Sigmoid Colon.

Dr. W. H. Kiger, Los Angeles, Cal.—Tubercular Fistula in Ano.

Dr. Samuel G. Gant, New York—Papillitis, Hypertrophied Anal Papillae.

Dr. Dwight H. Murray, Syracuse, N. Y.—Vaccine Treatment for Pruritus Ani.

Dr. Walter M. Brickner, New York.—Notes on Surgery of the Rectum and Anus.

MISCELLANEOUS

"Doctor Has His Troubles." A Reply to the Literary Digest.—By Geo. H. Tichenor, Jr., A. B., M. D., New Orleans, La. Associate Editor, Western Medical Times.

(1) "Unless he is in public service, or in the employ of some industry, or holds hospital-staff position, or is a specialist with established associations, he is having hard sledding to make a living. (2) Good authorities assert that the average income of doctors, little and big, is about $750 a year. I have no way of proving the figure to be correct or incorrect. (3) This is true, however; a doctor in general practice, who might have been a good carpenter, brick layer, butcher, or blacksmith, would have been financially better off, had he been content to stay in the working class of physical labor."

(1) The first assertion is absolutely true, as the whole profession is compelled to compete with government-paid employees in health, narcotic officers, and lately, venereal disease officers, who have the advantage of the law in enforcing regulations, free drugs as an inducement to draw patients, and lengthy reports for the private physician to fill out, which, in the end, discourage him to handle such cases. What is true in regard to venereal diseases, is more especially true in regard to handling addicts of narcotics, with the added pressure, perhaps, of a misunderstanding which will damage the professional character of the private physician. In both instances the government has the addresses of the doctor's private patients, a condition which is not allowed for one moment in business; interlocking directorates, etc., or the list of customers of one firm to be given another.

The government issues bulletins, likewise the state boards of health, telling the public the nature, causes, and how to treat diseases. If the physician's advice is not in accord with such treatments, a doubt is at least created in the mind of the patient. Thus the government becomes a competitor in all medical cases, and even in surgery in the Marine Hospitals, Army and Navy. During the world war the government entered upon the building of ships at the rate of 10 per cent plus cost of product; from the hue and cry in the commercial world we learn the same kind of disaster to private enterprise. The building of homes along similar lines by the government has met the same opposition. But for the physician to demand a basis of fair competition is simply awful!

In treating venereal diseases the government does not want the private physician to give the patient any medicine at all, as the officers do in venereal clinics. What business would stand such injustice?

In regard to staff positions in hospitals and associations with renowned specialists, evidently the editor of the Literary Digest has never read the numerous advertisements in the J. A. M. A. of positions which carried the reward of an ordinary stenographer, and not as much as a first-class cook ($100 to $150 per month for men who are required to be university and medical graduates of first-class institutions).

It is not only the commercial world that objects to government enterprises in competition with private undertakings, but also the labor world, which objects to competition with free convict labor. But bringing the matter a little bit more closer to home for the benefit of the editor of the Literary Digest, did we understand correctly the wail of the lay press when the government began issuing its free news bulletins about the war, army activities, etc.? Did not the press find a tendency to socialism, bolshevism, the horror of competition with the privately owned journals? Do you think the average editor could earn the doctor's fee of $750 annually if the government ran newspapers free of charge and delivered them in competition with the privately owned press? If this came to pass, would you say the average editor "who might have been a good carpenter, brick layer, butcher, or blacksmith would have been financially better off had he been content to stay in the working class of physical labor," or would the genious of the independent scribe be so great that people would naturally pay for his news, rather than accept it for nothing, although given quicker and with government precision and guaranteed accuracy? Would you advise every editor to become a government scribe at $150 per month, or the doctor's government wage which is less than all callings, in comparison to will and brain work to acquire same. No, you would make the ink red on every page, with type of the largest size, that "private initiative had been destroyed, incentive to compete in ability had been abolished, and a paternal government was be-

ing established." You would organize a union and strike.

Now, brother, what is "sauce for the goose should also be for the gander." The doctor has been worked long enough by the system of taking care of the victims of economic competition, the socalled "Charity Hospital System," which is a symbol of economic stupidity and an injustice and detriment to the medical profession. We want the laborer to be paid a wage sufficient for him to have a margin enough, after paying for necessities, to be able to pay the doctor, charity institutions to be compelled to be reserved for those unable to pay and physicians connected therewith to be paid by the state for services rendered to the state, and not to institutions in competition with private undertakings. That is, if our system of economics is to continue. We object to this partial socialization of medicine and competition in the same manner as other enterprises, including the press. If medcine is to be socialized, so should be all other callings and commercial enterprises. We are perfectly willing to accept the same condition—we want a square deal!

In your scheme for socialization for medicine only, of course, you state that "public health servants (an accurate term), should be well paid, just as teachers ordinarily are well paid," (salary usually $75 to $125 per month). I must confess that your consideration is extremely generous. It requires about sixteen years' schooling after leaving the grammar grades and an expense of about $20,000 to fit you to receive the present government position or hospital staff position at $150 per month, or about a lifetime of service to get back money spent on schooling alone. No doubt there will be a rush to become doctors in the future. I am afraid the school teachers will stop joining the American Federation of Labor, to force proper remuneration, after they have learned from you that they are well paid, or perhaps they, like the doctor, have all taken up the wrong calling. Perhaps your advice will be beneficial to the doctor and he too, like his brothers in Europe will follow the footsteps of the American school teacher, and join the American Federation of Labor, or compel his county societies to give him his just economic demands. Do not fret, brother, necessity will compel him to do one or the other. Either our medical society "leaders," who have not even the pleasure of direct selection, are going to give us economic justice or we will organize medical economic clubs and hereafter make the laws for the benefit of the profession instead of our "leaders" and for the benefit of corporations, working for their free clinics, either free or on starvation wages. The modern physician understands that this kind of philanthropy is the greatest foe to liberty, and destroyer of character. Millions of dollars are taken out of the pockets of the physician for honest services rendered, in order to save the employer the expense of paying his labor a just wage. We are going to see that this thing stops. Pay your labor enough so he will have a margin to pay his physician, after other necessities have been met. At present, various corporations ,insurance companies and medical partnerships are trying to give us a socialization, beneficial to their pocketbooks. We want the minimum wage and social insurance to cover his sickness and injuries so the patient can have money enough to employ any physician he desires. This question will come before eight legislatures and it is well for the general practitioner to keep his eyes open.

We have had millions for charitable institutions, but how many cents for economic justice? The church will soon cease to adhere to the patrician idea; the rich doling driblets of their surplus to the poor. Her terrific loss in membership will disable her to the extent that she will be unable to graft upon the medical profession any longer. Her injunction upon the poor, of a mood of gratefulness toward the benevolent feudalism of the day, "that they may increase and multiply their mercies upon us," has disgusted the intelligent christianity of the world.

I regret that our brother did not tell us how we were going to get rich off our patients, of whom the majority belong to the working class, when four-fifths of the wage earners of America receive a yearly salary of $750. Reports from the Bureau of Commerce of New York show it requires at least $844 yearly decently for a family of five, giving the necessities of life. The present-day labor problem constitutes the greatest problem in the history of the world. Unless the men of the nation and of the world intelligently face this problem, the greatest tragedy in the world's history is due. Unless thte system is changed, the poor will become poorer; the two per cent of the population who now possess over 60 per cent of the

national wealth, whose wealth is rapidly increasing according to the income statistics, will own the whole country. Then what?

The Bacteriology of Chronic Nasal Catarrh and Its Treatment by Autogenous Vaccines.—Mackey, in The British Medical Journal, records his observations made on patients suffering from (1) recurrent acute nasal catarrh, (2) chronic nasal catarrh, or (3) chronic post-nasal catarrh, not including simple brief nasal catarrhs, nasal infections associated with polypi, diseases of the antrum or sinuses, atrophic rhinitis, or any discoverable surgical lesion. He emphasizes the importance of making the cultures and incubating them as soon as the swabs have been taken. He says it is impossible to place any reliance on a nasal swab sent through the post, for two of the most important germs found in nasal catarrhs, namely, B. influenzae and pneumococcus, die quickly if the swab gets cold, while germs of minor importance, such as the staphylococci and diphtheroid bacilli, actually multiply in the mucous on the swab. He states that the nose is not, like the mouth and throat, a breeding place for all sorts of germs. Cultures made in the way the writer describes from healthy persons he finds here no resemblance to cultures made from patients with nasal catarrh. In catarrh almost invariably a profuse growth is obtained of the causative germ, which is usually the pneumococcus, B. influenzae, Micrococcus catarrhalis, Friedlander's bacillus, or a special type of streptococcus. Other organisms found are diphtheroid bacillus, Staphylococcus albus, M. tetragenus and B. proteus. The pneumococcus, however, is easily first as the causative agent and the influenza bacillus second. Of 558 cases of chronic catarrh studied by the writer during the past seven years, 351 cases showed pure cultures and 207 mixed cultures. While he does not believe that neurasthenia and gastritis are often due to nasal infections, he believes that chronic nasal infections are capable of producing those and many other diseases, and that a routine investigation of the nasal passages would be worth making in many instances of chronic and inexplicable disorder. He asserts emphatically that chronic and recurrent bronchitis is frequently due to post-nasal catarrh, and that the causal and dominant germs in the sputum can usually be obtained in pure culture from the nasal swab. The point is stressed that obstinate nasal affections in young children frequently depend upon adenoids, even though such adenoids do not cause nasal obstruction. Nasal infections are commoner than pyorrhea and much more important. They are a cause of pneumonia and bronchitis and lead to pulmonary complications after anesthetics. Otistis media and its complications begin as infections of the nasopharynx. That chronic post-nasal infection may prepare the way for tuberculous infection cannot be doubted. During the past seven years the writer has treated 500 cases of chronic catarrh with autogenous vaccines. Most of these patients were sent by their physicians because ordinary measures had failed to cure them. In the case of children vaccines were seldom used because chronic catarrh in children is generally due to adenoids and can be cured by the surgeon. The vaccines used were made from the germ or germs which were believed to be responsible and always from the primary cultures when these were pure. Mixed vaccines were made when two or more catarrhal germs grew profusely on the plates, or when, as sometimes happened, a different infection was found in the two nasal passages. The maximum dose of pneumococcus and streptococcus used was always 150 million for an adult, and of the other germs 300 or 400 million. The results were good. In many cases the patient was pleased and grateful and believed himself cured, there being no sign of catarrh, but the same germ is still in his nose, and after two or three years the catarrh will reappear. In one-half the cases the catarrh is cured and the nasal passages are normally sterile. In about one-third of the cases the catarrh persists in a modified degree. In the case of patients with secondary disorders, the results of the treatment are still better, for whether the catarrh is cured or only reduced, the general health is improved and the patient gains weight and sttrength.

Alcoholic Mania.—In treating the overstimulation of the cerebral centers by the excessive use of alcoholic beverages, Peacock's Bromides invariably exert a highly satisfactory sedative action. When the mania is active, doses of one to two tablespoonfuls may be given every hour or two with every confidence that the desired quieting effect will be produced, without the slightest danger ,or irritation of the gastric mucosa.

The Clinical Symptoms of Chronic Intestinal Stasis.—Lane, in the British Medical Journal, after describing the mechanical aspect of chronic intestinal stasis, says that dealing with the toxic effects of the delay, beginning with the large bowel they may cause infective processes in its mucous membrane which are classified under the term "colitis." They begin in and about the iliac segment of the colon and tend to extend along its length. Cancerous ulcers develop more frequently in the portions of the colon where the feces are hardest. The infection of the mucous membrane may involve the appendix, which is often anchored and its lumen constricted by acquired bands securing it to the abdominal wall or to the mesentery of the ileum. The material that stagnates in the small intestine becomes infected with organisms which effect an entry into it from the cecum. The infection may extend up to the duodenum, and thence to the liver and pancreas along the ducts of these organs and produce inflammatory changes in their walls. Calculi may form which, besides producing obstructive symptoms, may by their irritative impact result in the development of cancer. It is obvious that any operations performed upon the gall bladder or on the ducts of the liver and pancreas are for conditions that are of the nature of end results, and by such a procedure alone no means are taken to deal with the primary cause of the trouble. In other words, the patient is not cured of the disease, though he is relieved from some of the symptoms to the extent of the surgical interference. The main points with reference to the radiographic aspect of chronic intestinal stasis are: (1) The length of period that the meal remains in the stomach, the behavior of the stomach, the mode of emptying. (2) The size and shape of the duodenum, the mode in which it evacuates its contents, the form of the duodenojejunal junction. (3) The length of time the meal remains in the ileum, the mode of its evacuation, the degree of thickening of the walls of the terminal coil, the relation of the appendix to the end of the ileum, the evidence of the presence of an ileal kink. (4) The size and position of the cecum, with possible indication of its rotation. (5) The mode of passage of the meal through the large intestine, the limitation by a band of the caliber of the bowel about the junction of the cecum and ascending colon in the transverse colon, just below the gall bladder where the acquired ligament is attached, which connects the gall bladder to the pylorus duodenum, transverse colon at the splenic flexure, and at the last kink at the left pelvic brim. The form of the bowel must be examined with a view to determine the presence of inflammation of its wall or of diverticulitis. The shape and size of the pelvic colon should also be carefully observed both in the case of the meal and in that of the enema, since this is a factor of the greatest importance. The presence or absence of gall stones should be noted. In order to meet the prolapse of the viscera and the consequent angulation of the bowel at the several points at which it is fixed, great benefit may be obtained by pressure exerted on the lower abdomen in such a manner as to tend to keep the viscera up. An encircling belt does not do this effectually, since it serves to increase the intraabdominal tension by its lateral pressure. A stay increases still further this defect. On the other hand the greatest advantage can be obtained from a support which acts on the lower abdomen only. The best form of support is that called the Curtis belt, which has been constructed for the purpose. It is of the nature of a truss, with a counter pressure behind and springs which control a central V plate. If paraffin is taken at a suitable interval before a meal, it precedes it in the way through the tract. It facilitates the passage of the intestinal contents through the several points where they are likely to be held up by a mechanical obstruction or by spasm of a reflex or inflammatory origin. It, therefore, tends to overcome the delay of the material in the small intestine and also to hasten the passage of feces through the large bowel.

The Value of the "No Good" Malocclusion.—Douglas H. Stewart makes the malocclusion of teeth the subject of the article of his series of the value of the "No Good" articles. If the teeth do not close properly ill health is the result. If there was a space upon every history chart for malformations of the dome and upper jaw, then would doctors and dentists begin to realize how many, very many days of sickness may be forestalled by setting mastication right at the age of five years or thereabouts. These facts are well known, but of what use is that knowledge? if it is to be shelved or passed over in silence? The ignoring of a basic fact

like the great importance of the relation of a good mouth to bodily health in no way lessens the importance of the fact itself. Therefore, perhaps, one of the greatest benefits to mankind would follow from a public health service that insisted that every child of from five to seven years of age should have a mouth that is either in good working order or is put into condition. The great treatment for many diseases lies in forced or ample nutrition, but this nutrition at the developmental age of childhood depends more upon mastication than upon almost any other factor. A small amount of study would suffice to show that if the upper jaw is much distorted then every cavity in the head is also distorted, with the possible exception of the ear, the function of which is but too often ruined by a catarrhal process that never would have started were it not for the bad ventilation of adjoining cavities and their membranes. Why not consider malocclusion as much of a symptom as any symptom and by its removal render the removal of other symptoms possible? Is it because of this that a shut mouth and well chewed food are perhaps two of the greatest barries to various forms of infectious diseases? Has it never occurred to anybody that the baby that is nursing with a well shaped mouth and feeding from a breast that occludes that mouth escapes a lot of things, including scarlet fever? And it may be readily discovered that the family with good teeth and well closed mouths are almost immune, as compared with a family of mouth breathers, who are usually found to be "calamity gatherers."—Western Medical Times.

Uric Acid Diseases.

Of the 50 odd grains of uric acid produced in the body each twenty-four hours, the liver destroys 18 grains, the kidneys 22, the muscles 3 or 4, and the remainder, about 6 grains passes out of the body in the urine. If foods are habitually taken which contain a considerable quantity of uric acid, it is stored up in the tissues, the system being unable to destroy it. The result is hardening of the arteries, enlargement and hardening of the liver, premature old age, the formation of calculi in the kidneys or bladder, neuralgias, nervous exhaustion and probably a greater variety of symptoms and disorders than those resulting from any other single cause.

Spasmodic Stricture of the Urethra.—Jones (Glasgow Medical Journal) illustrates the danger of informing patients as to the nature of their illness by a report of the following case: A married man, 46 years old, confined to bed with heart disease sent a sample of urine for examination. This, which contained a considerable amount of albumin was abundantly charged with spermatozoa. The patient was informed of this fact and was asked to send another sample after the lapse of some time. When the doctor next saw the patient, the patient stated that he had been thinking over the circumstances and that he could not account for what appeared to him such an unusual occurrence. Within a few days the doctor received an urgent call to come to the patient. On arriving there he was informed that the patient was unable to pass water and was in considerable distress. His distress appeared to be more mental than physical. As there did not appear to be much urine in the bladder and as there appeared to be a good deal in a chamber at the bedside, the doctor assured the patient that it was only a nervous spasm and would soon pass off, and that he would pass a catheter later. In about four hours the patient insisted that he could not wait, but before medical assistance could be obtained he voluntarily emptied his bladder and since then has not had any further trouble, and is able to pass urine voluntarily.

A Case of Calculus.—Dr. Percival J. Eaton of Pittsburgh reported this case, which occurred in a boy, 6 years of age, who gave a history of incontinence by day as well as night. At first there was no pain on urination and then later paroxysmal pain became more and more severe. A recent circumcision had not relieved the incontinence. The usual methods of treatment had no effect on the incontinence. The X-ray showed a good-sized oval stone in the bladder. Its presence was confirmed by the sound. Through a suprapubic incision an 18.25 gram stone was removed. The boy made an uneventful recovery. The history of the boy revealed no apparent reason for the occurrence of the stone. He had not lived where the water was hard. The case was also interesting because of the long time the stone occupied the bladder without producing symptoms.—Medical Record.

Enlargement of the Thyroid Gland in Malaria.—J. B. Hume, in The British Medical Journal, observed enlargement of the thyroid as a complication of malaria —a complication not hitherto recognized —during the East African campaign. His interest was heightened when, in June, 1918, during an attack of malaria, he developed a marked enlargement of the gland himself. The condition is characterized by an acute enlargement of one or both lobes of the thyroid gland during an attack of malaria, and occurring some 12 to 30 hours after the fall of the temperature. In no case of the thirty, all white soldiers, was there a family or personal history of thyroid disease. Malarial parasites were found in the blood in every case, usually in rather scanty numbers. Subtertian forms predominated, but benign tertian and mixed infections also occurred. In a typical case the enlargement of the thyroid appeared suddenly, in the course of the attack of malaria, from 12 to thirty hours after the fall of the temperature. The previous pyrexia had lasted from one to three days, and no subsequent rise of temperature occurred. One or both lobes became markedly swollen and somewhat painful and tender to touch. There was no redness of the skin, the consistency of the swelling was uniform, and it showed all the characteristics of a generalized enlargement of the gland. Dysphagia, in varying degrees, was a prominent symptom. Pain and throbbing in the head were frequent. There was usually a slight muscular tremor. In only two cases was there any exophthalmos. Tachycardia was very constantly present, the pulse rate being usually in the neighborhood of 100-110, but sometimes as high as 130. Some alteration of the heart sounds at the pulmonary base was common—either a systolic bruit or an accentuation of the second sound. The spleen was enlarged at some stage of the attack in about 70 per cent of cases. The treatment was usually carried out on routine lines. Quinine bihydrochloride was given by mouth and in a few cases also by the rectum. The usual procedure was to give five grain, three hourly, omitting one dose in the night, over the first four days. Then a smaller dose, 15 to 20 grains daily, combined with arsenic, increasing to the full dose over the relapsing period on the ninth, tenth, and eleventh days. In most of the cases there was, in from four to ten days, a marked reduction of the swelling, but in Hume's own case it had not entirely disappeared at the time of the report. In subsequent malarial attacks it has invariably enlarged for a time. He is inclined to believe, from these and other observations, that the changes in the ductless glands in malaria may be far more marked than present knowledge shows, and that physiological and pathological research may show that in these changes may be found the explanation of some at least of the conditions complicating found in malaria.

Syphilis and Tuberculosis—Syphilis, the arch enemy of mankind, not only modifies, and usually for the worse, the course of many diseases, but also, undoubtedly, prepares the soil for numerous infections which otherwise might have been successfully resisted. We are reminded again of this by an article on the association of syphilis and tuberculosis appearing in the December issue of the New British monthly journal Tubercle. In this article Dr. Alfred Mirande of Paris points out that Emile Sergent by a series of experiments has not only confirmed the views of those who have shown that there is an association between syphilis and tuberculosis, but has placed the matter in a somewhat new light. Sergent's thesis is thus summarized by Mirande: Syphilis and tuberculosis are two different infections and can develop separately in the same organism. Syphilis produces a soil for the tuberculization of the infected subject, but especially does the syphilis of the father prepare for the tuberculous infection of his child. Many forms of tuberculosis, and in particular scrofula, develop most often in a favorable syphilitic soil. Perhaps the most interesting and suggestive part of the article is that which deals with the subject of tuberculosis in cases of congenital syphilis. According to Sergent tuberculosis in a young congenital syphilitic, instead of taking on the bronchopneumonic form general in subjects of this age, develops as an excavation, the cavity being either the product of associated action of the treponema and the tubercle bacilli or of the bacilli only. In any case mercurial treatment should be commenced and will help the cicatrization of pulmonary lesions, even when the bacillus of Koch is present. In the case of a congenital syphilitic apparently without lesions, the phthisis becomes sclerotic, and as in the adult is accompanied by asthma and emphysema. Finally, Mirande remarks, it

should be remembered that the frequency with which syphilis is found in the children of tuberculous parents, whoever they ay be, has prompted Sergent to wonder whether tuberculosis is not often the indirect result of the inheritance of syphilitic soil, and to put forward his claim that tuberculosis may be a symptom of congenital syphilis. In making the diagnosis of a suspected case of syphilotuberculosis ,the following points should be borne in mind: Laryngeal phthisis is often a symptom of syphilis. Fibrous pulmonary tuberculosis should lead to a search for syphilis. In general tuberculosis is perhaps an indirect result of the inheritance of the syphilitic soil, syphilitic pneuopathies often conceal a hybrid association with tuberculosis, and the remedial effect of mercurial treatment is not alone sufficient evidence, when its influence on the soil is known, for discarding the possibility of the presence of tuberculosis. In children many diseases of tuberculous origin, especially scrofula, develop readily in syphilitic soil. Mercury is the treatent advocated by Sergent for the syphilotuberculous and he prefers it given by injections in the form of soluble salts.—Medical Record.

Remarks on Chest Wounds.—Nixon (British Medical Journal) says that the general considerations from the surgeon's point of view of chest wounds are, first to save life; second, to restore function as completely and as quickly as possible. All wounds of the parietes and thoracic contents should receive the surgical attention they require at the earliest possible moment. Hemorrhage must be arrested and every possible step taken to avoid infection. No fluid, whether blood serum or pus, must be allowed to collect in the chest. Early and frequent aspiration must be resorted to whether thoraotomy has been performed or not. Any fluid in the chest is dangerous from two points of view: (a) It is a nidus for sepsis. (b) It interferes with the expansion not only of the injured but also of the uninjured lung, setting up conditions favorable to the development and spread of bronchitis, broncho-pneumonia and lobar pneumonia. Foreign bodies, clothing and bone should be removed whenever possible. They are dangerous not only from the point of view of immediate sepsis, but from that of subsequent interstitial fibrosis. Resection and open drainage, as formerly practiced for empyema, is an unsatisfactory operation, and is shown by experience to be rarely necessary if the early treatment according to modern methods is not neglected.

Forty-five members of the Alpha Kappa medical fraternity spent a day recently going through the Chicago plant of Armour and Company.

A special program was arranged in their honor, and they were shown through several departments which are not on the regular visitors route, but which were considered of special interest to them as medical men. They were guests of Lester Armour.

Before going over the packing house route, the members of this medical fraternity were served with bouillion at the Visitors' reception room. On the completion of their journey through the plant they were escorted to the chipped beef department where a buffet luncheon was served. In the meantime they were shown the various processes of converting meat animals into meat products.

The visitors expressed themselves as being particularly interested in the trip to the U. S. Government Inspector's Office, where Dr. J. H. Wheland explained the activities of the Bureau of Animal Industry. Dr. Frederic Fenger of the chemical laboratory told of the work of his department and also of the important part played by chemistry in the meat product industry. Dr. Volney S. Cheney, medical director of the company, described the work of Armour's medical department in safeguarding the health of all employees.

Exophthalmic Goitre and Sterility in Women.—The frequency in France during the war of exophthalmic goitre in women became especially noticeable. This was attributed to the prolonged anxiety and mental disquietude of which the war was generally productive. It was also observed that with the exophthalmic symptoms was associated uterine atrophy and consecutive sterility. Blondel, in a paper read before the Academy of Medicine in Paris, has drawn attention to these facts. He assigns also to the war the marked increase of exophthalmic goitre cases in men. As to treatment, he speaks highly of the use of thymus gland. From the successes which he records the hint is worth a trial.—The Medical Press.—The London Medical Press.

Some Aspects of Military Ophthalmology.—McKee (Bulletin of the Canadian Medical Corps) speaks of the difference between military and civilian ophthalmology, and insists upon the desirability of having, in every military hospital, a special ophthalmologic section for the examination and classification of recruits.

A series of observations is then given, which may be summarized as follows:

In some cases of myopia and astigmatism the patient's vision was normal before proceeding to France, and the defect was probably due to high explosives. Epidemic conjunctivitis was trachoma have almost disappeared as a military disease. Cases of gonorrheal ophthalmia have also been very few in this campaign. Night blindness, on the other hand, has taken a prominent part; in a number of cases it is associated with retinitis pigmentosa. Out of 105 cases of iritis, Wassermann's reaction was positive in 33 and negative in 72; in 4 cases of retinitis pigmentosa the reaction was negative; in 11 cases of optic neuritis, 5 were positive, 6 negative; in 7 cases of interstitial keratitis. the reaction was positive in all; in 30 cases of retino-choroiditis 15 were positive and 15 negative. Out of 3000 ophthalmic cases observed, only 2 were cases of sympathetic ophthalmia. A large number and variety of fundus lesions have been met with, the commonest being a condition of traumatic retino-choroiditis identical with retino-choroiditis of secondardy syphilis. No attempt should be made to correct strabismus. The West operation is recommended for dacryocystitis.

Bladder Injuries in Wartimes.—Fullerton (British Journal of Surg.) says that injuries to the bladder form a very small proportion of the total wounds reaching the base hospitals. The proportion is about 1:3000 or 1:4000. Prognosis depends to a great extent upon associated injuries. The author's report is based on a series of fifty-three cases, thirty-five nearly 70 per cent, being complicated by injury to the intestines, or bone or both. In twenty-six cases there was an injury to some part of the lower intestine and thirteen of these were also complicated by some bone fracture. Nineteen cases were complicated by injury to the rectum. The small intestine was also injured in six cases.

The mortality of bladder injuries is very high. There were in this series of cases thirteen deaths. The chief causes of death have been pelvic cellulitis, peritonitis and sepsis. The chief sequelae are bone necrosis, cystitis, calculus and stricture of the neck of the bladder.

On the Nature of Rabies and Antirabic Treatment.—Semple (British Medical Journal) takes occasion to review this subject from the practical standpoint because of the present outbreak of rabies in England. He points out that whether we speak of the disease as rabies in animals or hydrophobia in man, the cause is the same in both cases and it would perhaps be better to use the terms "rabies" and "rabid" for the condition in both man and animals. Rabies is specific infectious disease, to which all warm-blooded animals are susceptible. The cause has not yet been discovered. The saliva of man and animals suffering from the disease contains the infective agent. In addition, infection is always present in the brain-medulla, spinal cord, cerebrospinal fluid, and large nerves of man and animals suffering from rabies. The saliva of a do gmay be infective for as long as five days, and in a few cases six to seven days, before any outward symptoms of the disease develop. Negri bodies are found in the brain and medulla in about 95 per cent of rabid dogs, and while they are not truly specific of rabies their presence forms a valuable, if not absolutely certain, test for rabies. Rabies in dogs may manifest itself as either "furious" or delirious rabies, and "dumb" or paralytic rabies. While the former type is most frequent in man, the latter type is also seen. The period taken by the virus in reaching the nerve centers is variable, and depends on many factors. When bites are on the head, face, or neck, the virus has only a short distance to grow along the nerves before reaching the brain, hence it is especially important that bites in these localities receive early treatment. The incubation period of the virus of a rabid dog is fourteen days or thereabouts when inoculated on the surface of a dog's or rabbit's brain. When rabies is inoculated on the surface of an animal's brain, no subsequent antirabic treatment will prevent the onset of

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"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods.

Primary Perinephritic Phlegmon.—Bergeret discusses various types of purulent collections about the kidneys. With one we have nothing to do, as it is really retroperitoneal abscess secondary to suppuration in the vicinity, as appendicitis, pancreatitis, etc. There is another type which originates in the kidney itself secondary to tuberculosis and other surgical affections of the organ. With these excluded we can discuss a form which is apparently primary, comes on insidiously and often in the midst of apparent health, and is unrecognized clinically for a long period. This was described by Trousseau who sought diligently but in vain to ascertain its cause. In time we learned the metastatic nature of this lesion and to associate it with an angina or a gastroenteritis or infection of the bronchiopulmonary system. The question comes up "can this affection ever arise without a primary focus?" For the past twenty years we have known that slight foci in the integument have been sufficient to give rise to it. Richardson in an alysis of 108 cases found the following foci: furuncle in 55; felon in 21; local abscess in 11; carbuncle in 10; tonsillitis in 3 and infected wounds in 3. This does not exhaust the list for the following can be added from other sources: parotitis; periosteal abscess, infected mosquito bite, abscess of the rectum and sacrum, osteomyelitis, otitis media, etc. In the vast majority of cases the staphylococcus is the cause, but exceptionally any other pyogenic may replace it. The general disease picture in these cases is due in part to a mild bacteriemia which is not the result but the concomitant of the phlegmon. To this must be added the symptoms due to the latter. The exact mechanism is still obscure, due to the part played by the kidney. In some cases the accumulation of the circulating bacteria near the capsule in the renal vessels is the first stage of the process and this behavior could readily explain the apparent frequency of this accident. But while this type predominates it is none the less true that the kidney is sometimes intact. These cases are rare and due to the direct deposit of the coccus in the perirenal fat. In the renal type conditions then do not differ radically from the mestastatic abscesses of the kidney in acute sepsis? The very frequent presence in the urine of the staphylococcus is of diagnostic utility.—Medical Record.

The Harveian Lecture at the Medical Society of London.—On October 24, at the rooms of the Medical Society of London, Sir Berkeley Moynihan gave the opening Harveian lecture on gastric ulcer. The lecture was a remarkably clear exposition of the surgeon's well-known views on the subject, many of which are original and by no means in agreement with those held by perhaps the majority of surgeons. In fact, he stated plainly that there must be a ruthless revision of present-day views so far as gastric ulcer was concerned. He began by explaining the situation of gastric ulcer, or rather by demonstrating how to differentiate between gastric and duodenal ulcer. It was pointed out that the pyloric vein was a sufficiently accurate landmark of the position of the pyloric, showing which was duodenum and which stomach. The features which differentiated gastric from duodenal ulcer were that carcinoma occurs on the base of a gastric ulcer, but seldom in duodenal ulcer; gastric ulcer is somewhat rare and extremely difficult to diagnose correctly; duodenal ulcer is more common and easier of diagnosis; pain in gastric ulcer is regular and occurs fairly early after food; in duodenal ulcer, in the majority of cases, pain occurs two hours or more after meals; in gastric ulcer relief of pain occurs before the next meal is taken; in duodenal ulcer pain is constant; the pain appears earlier in gastric ulcer and is worse when the ulcer is near the cardia than when it is in the body of the stomach; pain in the back is very severe when a gastric ulcer erodes the peritoneum. Lassitude before pain sets in may be due to intestinal toxemia. Regularity of pain is a main feature of gastric ulcer and it occurs twice more frequently in men than in women, judging from statistics of operations. Vomiting is infrequent in gastric ulcer, nor is hematemesis common. In 25 per cent of the cases in which Moynihan operated hematemesis occurred, and in these there was an element of doubt. Of all the methods of diagnosing gastric ulcer Moynihan awards the palm to the X-ray. Indeed, he estimates the value of the X-ray as a means of diagnosis as equal to that of all the other methods put together. Hyperchlorhydria, he said, was a capricious symptom and one upon which no great reliance could be placed. The point was again emphasized that more mistakes are made in the diagnosis of gastric ulcer than in that of any other abdominal disease. Ac-

cording to Moynihan the only sure means of diagnosing gastric ulcer was by the X-ray or by incision through the abdominal wall. As for medical treatment, the speaker did not express himself too favorably. He stated that treatment for reduction of acidity was of little use in the treatment of gastric ulcer. He pointed out that when treatment by medical measures is successful, that is to say, when the ulcer heals, it is not permanent, or it leaves a scar, to remove which an operation has usually to be performed. Moynihan has given up gastroenterostomy for some time, mainly for the reason that in his opinion there is always the danger of carcinoma forming on the base of the ulcer. He, therefore, now invariably does a gastrectomy for gastric ulcer, thereby avoiding any risk of malignant disease occurring. He praised the operation of Balfour, of the Mayo Clinic, but prefers gastrectomy to any. Of course, every surgeon is not able to do a gastrectomy with confidence, but he holds that, undertaken by a man who thoroughly knows his work, it is in the long run the operation which insures the most permanently successful results.—Medical Record, New York.

Carbon Monoxide Poisoning.—Balthazard (Bulletin de l'Academic de Medecine) notes that the long held view of carbon monoxide hemoglobin as a highly stable combination can no longer be held correct. While carbon monoxide hemoglobin does not become dissociated in vacuo, it readily breaks up in the presence of oxygen. That red corpuscles the hemoglobin of which has even but momentarily been combined with carbon monoxide, are mere cadaveric changes, and the multiple neuritis ascribed to it is purely hypothetical. That carbon monoxide is a general protoplasmic poison remains unproved; indeed, experimentation tends to show that it is simply a poison to the hemoglobin. Animals whose blood contains no hemoglobin live without difficulty in an atmosphere heavily charged with carbon monoxide. Physiological experiments indicate that anoxemia accounts for all the symptoms of acute carbon monoxide poisoning. At the moment of death from this gas the blood was found by Nicloux and the author to contain but one-third of the normal amount of oxygen. Air containing 0.1 or 0.2 per cent of the gas does not kill man, even after prolonged exposures; 0.33 per cent becomes dangerous only after several hours, but death is certain and rapid in a one per cent mixture. Different subjects show varying degrees of resistance to the effects of the gas. In brief, while recent views on carbon monoxide do not in the least reduce the importance of avoiding admixture of this gas in air to be breathed, they do offer hope that good results may be secured by rational administration of oxygen or compressed air to those suffering from carbon monoxide poisoning.

Paralytic Rabies in a Child.—Pierre Marie and Charles Chat (Bulletin de l'Academie de Medecine) reported the case of a boy of eleven who, about five weeks after being bitten on the upper lip by a dog, began to suffer from headache and frequent nocturnal spasmodic attacks, without salivation or unconsciousness. In the daytime the child spoke constantly of his death and stated that he had already been buried. Some days later complete, flaccid paralysis of the lower extremities supervened. Upon examination sixteen days after the onset, a slight Kernig sign was noted. There was no salivation but some difficulty in swallowing. The rectal temperature was 39.6 C. and the pulse rate 118. Lumbar puncture yielded a slightly turbid fluid under high tension, with marked especially polymorphonuclear, and corresponding hyperalbuminosis. Soon after the patient showed deeper prostration. Paralysis of the upper extremities gradually came on, and the child passed into a state of profound topor. Death took place from progressive paralysis of the respiratory muscles, without typical bulbar manifestations, two days after admission, i. e., eighteen days after the onset. The diagnosis of this uncommon, primarily paralytic form of rabies is seldomn made clinically, although, as is well known, the paralytic form is typical in the rabbit, and Pasteur produced it in the dog by intravenous injection. The Clinical picture is that of a rapidly progressive acute poliomyelitis, and history may not suggest rabies; at times incubation period is of several months' duration, and contamination may occur, not alone from bite of a dog, but from licking or mere contact of an open surface with a contaminated object. Histological study of the central nervous tissues showed a definite poliomyelitic process.

The Infecting Agent in Influenza.—Yamanouchi, Sakakami, and Iwashima, in The London Lancet, were able to study the infecting agent of influenza by inoculation into fifty-two human volunteers, obtaining the following results: An emulsion of the sputa from forty-three influenza patients, made with Ringer's solution, was injected into the nose and throat of twelve healthy persons and the Berkefeld filtrate of the same emulsion was similarly injected in twelve other healthy persons. Six of the twelve other healthy so inoculated had previously suffered from influenza and all six remained free from symptoms. In the remaining eighteen persons influenza developed after an incubation period of two or three days. A filtrate from blood of influenza patients was injected into the throat of six healthy persons and in all six the disease developed. Four healthy persons were inoculated subcutaneously with the filtrate of the sputum emulsion and form with that of the blood, and in all but one influenza developed after an incubation period of two to three days, the one resisting having previously had the disease. Fourteen healthy persons were inoculated into the nose and throat with either a pure culture of Pfeiffer's bacillus, or a pure culture of that organism mixed with pneumococci, streptococci, staphylococci, and other organisms. All remained normal. From these crucial experiments the authors conclude that the organism of influenza is a filter passer; that it can infect either through the mucous membranes of the nose and throat, or after subcutaneous inoculation; that it is present in both the blood and sputum of influenza cases; that the commonly known organisms present in influenza are not the primary cause of the disease; and that the organism produces immunity in those who have been infected.

Feeding the Sick Child.—L. J. Simonton thinks that too much importance has been given to the chemical side of the picture and not enough consideration given to the fact that we have in the case of the sick child either some underlying defect or perhaps "idiosyncrasy," and also to the fact that the fault lies not with the food, but rather the weakened powers of digestion as a result of a temporary upset from one clause or another. In the latter case it is foolish to try to decide whether fat, protein or sugar is at fault; the fault lies in the child's weakened condition. In order to get this digestion back to normal we need simply to weaken the food for a time, eliminate intestinal toxins and sterilize the bowel. If there is an idiosycransy to certain articles of food, Simonton prefers the term anaphylaxis to milk; for instance, use one of the proprietary foods containing dried milk, give vitamines in the form of orange on mashed potato, until the acute attack has subsided and bowel returns to normal, when such articles as two-minute egg, etc., may be added to the diet. Oftentimes these children, on return to normal, where no anaphylaxis exists ,are then able to metabolize fresh cow's milk. The constitutional causes underlying ileocolitis, aside from anaphylaxis, are often scurvy and rachitis. In scurvy furnish vitamines. In rachitis lime in assimilable form should be administered. The object of the author is to render the bowel sterile and the routine procedure is to clean out the bowel with full tablespoonful of castor oil, followed with daily dose of tablespoonful of mineral oil. Give intestinal antiseptics; copper arsenate, 1-200 to 1-1000 gram every three hours will answer. To this may be added bismuth, to aid formation of sulphides in the stools, and a little digestive elixir if desired. As to deficiency lying in intestinal secretion, it is Simonton's belef that the "alexns" are responsible by their absence for primary anaphylaxis.—Western Medical Times.

The medical department of Armour and Company has taken precautions among plant employes against a return of the "flu" epidemic in Chicago and other cities where the Armour plants are located.

All employes have been notified that without charge they may have the influenza vaccine administered according to the formula of Dr. E. C. Rosenow.

In addition to offering this vaccine free to employes, a general educational campaign along health lines and particularly with reference to the "flue" is being carried on among the workers in the plant.

Dr. Volney S. Cheney, medical director of Armour and Company, reports that the employes are taking an interest in the campaign and that as a result no serious recurrence of influenza is looked for among Armour workers.

The Richmond Meeting.—That was a great meeting of the Medical Society of Virginia! The large registration of members was most gratifying. Physicians and surgeons, general practitioners and specialists from all parts of the State were interested attendants upon the sessions of the Society. The scientific program held the attention of the members, and the sections were well attended at each session. The standard of the papers which were presented was high and the discussions resulting were filled with telling criticism and suggestion.

Dr. Ennion G. Williams' address at the opening session on Tuesday night was filled with facts as well as important suggestions for future development of the public health work in Virginia. As Health Commissioner, he was extremely wise in selecting Problems of Public Health as the subject of his address, for one would hardly hope to have the opportunity to speak to a larger number of Virginia physicians at one time than were present at that opening meeting of the Society. During the whole meeting, frequent comment was heard upon the interest aroused by this address.

Dr. J. N. Upshur, the nestor of the Virginia Society, read with eloquent words his address on the history of the Medical Society of Virginia, depicting some of the early meetings and recalling pungent sections from addresses and papers read before the Society in the long ago. Dr. Upshur's portrayals of the personal virtues and characteristics of eminent physicians in old Virginia were indeed interesting.

Dr. George Ross, now in his 81st year, also added to the pleasure of this meeting by telling, in his inimitable way, of the old days, frequently dealing with his personal experiences in poetic cadences and rhyme. It was an inspiration to listen to words from the lips of these Virginia gentlemen and true physicians who have spent their lives in such usefulness and honor in Richmond in the pursuits of medicine.—Virginia Medical Monthly.

Fate of Gravidae with Heart, Lung, and Kidney Disease.—Hussy gives the following figures from the Basle Clinic. The total number of confinements for a given period was 15,352, of which 35 women suffered from organic heart disease, over one-half presenting mitral stenosis. One woman died during gestation and 3 primarily as a result of delivery, while 6 others died later, the exact mechanism not being given. The total mortality to date was, therefore, 10. In 19 cases pregnancy and labor did not prejudice the patient's condition at all and in 7 others but slightly. In 14 cases the women were seen to grow worse during pregnancy. In 10 patients therapeutic abortion was performed. The figures show considerable overlapping. The total number of tuberculous women received at the midwifery clinic was 76. There were 14 deaths during gestation while in 14 cases therapeutic abortion was performed. Five died after delivery and 8 as a result of the same at a more remote period. Forty-eight went through gestation and labor without prejudice of any kind. The total number of renal cases was 15. There were no deaths in gestation, but 3 after delivery. Seven went through pregnancy and labor intact, while 3 were made worse but survived—Correspondence-Blatt fur Schweizer Aerzte.

Side Lights on Cascara.

Physicians frequently refer to Parke, Davis & Company as the cascara house—for it was this company which introduced Cascara Sagrada forty-three years ago. Cascara was unknown to the medical profession until Parke, Davis & Company—with the assistance of prominent physicians, chemists, botanists and pharmacologists—studied the drug and definitely established it as a therapeutic agent.

Cascara immediately sprang into popularity with physicians. It became a subject of discussion in medical meetings—not only in this country, but on the other side of the Atlantic. It was directed to the attention of the British Medical Association at a convention in Cork, Ireland, as early as 1879. It wasn't long before cascara was being prescribed by medical men all over the world. Today the drug is recognized by every pharmacopoeia except the Finnish and Portuguese. It has come to be looked upon as an essential in medical practice.

Fluid Extract of Cascara (P. D. & C.) is an ideal product. It contains all of the tonic-laxative constituents of two year-old bark of Rhamnus Purshiana, the true cascara. The dose is about one-half that of ordinary fluid extracts of cascara.

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"It's a Condition That Confronts Us, Not a Theory."

These were the words of a celebrated statesman, and they apply with particular force in treating the many conditions presented daily to the physicians.

Theory is most admirable where it works out in practice, but where the practical is subjugated to the theoretical, results are frequently disappointing.

When confronted with a case of Dysmenorrhea, is it not well to at least try a remedy like Hayden's Virburnum Compound which for years has enjoyed the confidence of some of the best men in the medical profession?

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If given a trial, the original Hayden's Virburnum Compound administered in hot water, teaspoonful doses, will enjoy and retain your confidence. If confidence is lacking to the extent of giving it a trial consider that Marion Sims found H. V. C. a most serviceable and satisfactory remedy and so referred to it in his writings.

Formula, literature and a sufficient supply for clinical demonstration will be sent on request to the New York Pharmaceutical Company, Bedford Springs, Bedford, Mass.

The Prophylaxis of Industrial Infection.

While "Safety-First" has obviated the occurrence of many preventable industrial accidents, the incidence of infection following injuries in shops, mills, factories, offices and stores is still one of the greatest problems with which tthe physician has to contend.

Industrial first-aid and surgery make many special demands on the physician. Of these demands, that for an efficient, non-toxic and cleanly antiseptic is one of the most constant. The physician using Dioxogen has no trouble in this direction, for he has learned to appreciate its unique advantages as a thoroughly reliable antiseptic in the routine prophylaxis of industrial infection.

Extended experience in practical, every-day surgery has conclusively demonstrated that Dioxogen is peculiarly adapted for efficiently cleansing infected wounds, or dressing fresh cuts or abrasions. No other antiseptic is so prompt in its control of suppuration, so gratifying in its promotion of tissue repair, or so satisfactory for all-round use.

A supply of Dioxogen in the workshop clinic, and a bottle in the first-aid chest or surgical grip, gives the industrial physician and surgeon the comforting assurance that he is prepared to meet any demand for antiseptic treatment and prophylaxis.

In purchasing a peroxide of hydrogen it is essential to make sure that it is free from adulteration and irritatting qualities. It must also be of constant, unvarying character as well as high germicidal potency. By definitely specifying Dioxogen and insisting on its use medical men will protect themselves and the best interests of their patients.

Growing.

Most people want to grow. They would like to advance in their work, earn more, have greater influence, do bigger things. Yet, strange to say, the world is full of people who do not "grow up." They have lost the secret of their youthful days. They come to a halt in self-development, and folks say they are getting "old."

But a person is never old until he quits growing; and he need not quit growing until the end of his years. The most conspicuous fact about great men—men who do big things, and keep on doing them—is that they never cease growing. They are perpetually young.

They have the real things of which Ponce de Leon's "Fountain of Youth" was only an imitation.

If a man sets his heart upon growing, he has but three things to do:

First, he must be a Learner all his life. I do not mean from books only. Almost any one can learn from books. Many have attained the knack of learning from things, by observation. Few have acquired all there is to the art of learning from other people.

Yet, almost every one you meet has something important to teach you, tell you, or show you, if you know how to ask intelligent questions, and if you are genuinely interested in learning. Some will give you information, some will teach you wisdom, some will show you the right manner of delivering a smile or hand-

shake. The man who would grow must be a human interrogation point.

Then, he must be a Thinker—and must think hard. He may not be able to "add a cubit to his stature, by taking thought," but he can surely add to his personality, his influence, his power and success. Many people never put a load on their brains, and their brains, like an unattached locomotive, always run "light." Unless a man revolves in his mind what he learns and observes, he never gets any use from it. He must make deductions.

Finally he must be a Doer. Some people are long on thinking but short on doing. They are the dreamers. But Experience is, after all, the greatest of all teachers. When you have the courage to tackle the difficult thing which tests your utmost ability, then you are down to the business of growing in all its fine points.

The bumps you will get, the discouragements you will encounter, and even the mistakes you will make in being zealous in your doing, will be among the best parts of your education.

When I meet a man who shows me he has lost interest in his business, I feel sorry for him. I know that he has ceased to grow. For there is no better place to practice growing than in one's daily work. It is a field of unending possibilities for learning facts, meeting people, attaining new triumphs day after day that prove one's mettle and one's brains. Success and rewards always come to the person who continues to grow but the greatest reward consists in having found the secret that makes life continuously interesting.

J. Ogden Armour believes that: "Only as we shoulder individual responsibilities shall we continue to succeed nationally." This is his message in the Armour year book for 1920.

"Unless we each recognize the other's problems" maintains Mr. Armour, "conflict is inevitable. The citizen must comprehend business for this country's progress is built on business activity and what injures business injures the nation as a whole.

"Investment is essential to business and investment will not be made where there is constant harrassment of capital.

"Democratic principles upon which this country is founded are safe so long as we all respect them, realizing that we are bound by mutual interests and that no one group can permanently secure an unfair bargain at the expense of others."

Mr. Armour refers to the responsibility of Armour and Company in serving the producer and the consumer, and continues:

"Every investigation of our methods has demonstrated that we do meet the purposes and necessities for which we exist, and that our operating costs and profits are the smallest of any large successful industry. There is only one way to arrive at the truth about the cost of meat, and that is to study the problem in its entirety. Any investigation must cover the entire field from the farm to the table."

It is pointed out that wholesale beef prices which averaged $21.43 on May 1, 1919, steadily declined to $14.72 by December 1.

Armour and Company as a result of doing business for many months on a steadily falling market report that their sales on dressed beef for the year showed a decided net loss. Hogs bought at a high price in June were sold at a considerable loss in October.

Referring to the high cost of living it is held that "Everybody is responsible." Some of the reasons why prices are high as set forth in the year book are: Inflated currency, scarcity of staple goods in Europe; higher wages; reduced output due to interrupted production on account of strikes and shorter hours; price fixing by the government thus interfering with natural laws of supply and demand; loss of life and a colossal consumption of food, fuel, metals and other industrial material during the war, together with a wave of unprecedented buying extravagance that has given every opportunity and encouragement toward price boosting and profiteering.

Remedies suggested for the high cost of living are hard work, economical buying, more goods, greater care in consumption, less credit.

In voluntarily agreeing to relinquish certain so-called grocery lines, such as canned fruits, vegetables, grape juice, fish and condiments and to sell all interests in the stockyards, terminals, public cold storage warehouses and similar interests, the company says, it did so "Frankly and solely in deference to public opinion," while maintaining that its position has been legally, morally and economically

sound and in the interest of consumers and producers.

The financial statement shows that although the company's gross business amounted to $1,038,000,000, exceeding all previous records, with a net income of $14,098,506, the return for each dollar of sales, amounting to $1.35 cents net, was the smallest in the history of the organization. The return on a capital investment of $208,869,782 amounted to a net of 6.74 per cent. All the net profits, with the exception of $2,986,123, paid as dividends, were re-invested in the business, in accordance with the usual policy of the company.

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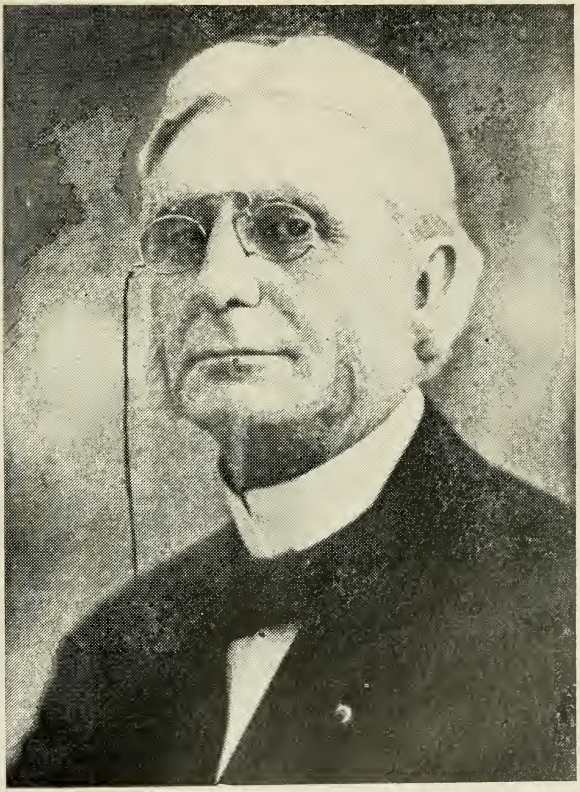

EDWARD C. REGISTER, M. D.

OCTOBER 20, 1860 FEBRUARY 18, 1920

"IN MEMORIAM"

We bow our heads in reverent memory of the great man who for so many years has been the life and inspiration through the pages of this journal, to his fellow doctors everywhere.

In the death of Doctor Register the Medical Profession has lost one of its foremost and best men. Fearless at all times he fought for the right and the best interests of his chosen field of work.

As Editor, for 28 years, of the CHARLOTTE MEDICAL JOURNAL he did his best to bring to its readers, and doctors generally, every phase of advancement in Medical Science. Keeping abreast of the times himself his first thought was ever to pass the best and sanest lessons on to others. The greatest monument to his memory is the results to mankind of better work he has helped all doctors do.

It seems his place can scarce be filled, and indeed but for the inspiration of his life and the clearness of his teaching it would be impossible.

Recognition had come to him from high places and his name has honorable place in the annals of the Medical Profession.

Original Communications

OBSERVATIONS REGARDING THE DIAGNOSIS AND TREATMENT OF BRAIN INJURIES.*

By William Sharpe, M. D., Professor of Neurological Surgery, New York Polyclinic Hospital and Medical School, New York City.

The clinical pathology of brain injuries of both the acute and chronic types has been so confused and befogged by the presence or not of a fracture of the skull that it is only within recent years that this subject could be discussed as being separate and distinct from the external cranial pathology. I shall limit this paper to observations regarding the usual forms of brain injuries occurring in our civil, industrial life of peace times and I shall not include those severe war injuries, many of which caused extensive destruction and loss of cerebral tissue while a very large number were of the external cranial type with little or no impairment intradurally; the presence of an intact dura in these latter patients is of the greatest value.

Even today in many hospitals, these acute patients are admitted and labelled as, "fracture of the skull," "possible fracture of the skull" or "doubtful fracture of the skull"—and in the absence of positive roentgenograms, then as "concussion," "severe cerebral concussion" or "questionable fracture of the skull." However it is gradually becoming more and more recognized that in the absence of a definite depression of the vault of the skull, then the presence or not of a linear fracture of the vault and even of the base of the skull is in the vast majority of these patients possibly the most unimportant factor—not only in the diagnosis and in the prognosis, but also in the treatment of these patients; to be sure, in acute linear fractures of the vault underlying severe contusions and lacerations of the scalp and thus the greater danger of an infective process extending intracranially through the line of fracture, and then in basal fractures opening into the nares and into either middle ear—in these "open" fractures of the skull, there is a slightly increased danger of a local infection extending intracranially to produce a purulent meningitis, but the actual risk of this serious complication is very small indeed if the local scalp wound is properly treated early and in the basal fractures, if meddlesome procedures of plugging the nasal passages and the ears in a mistaken effort to stop the discharge of blood and cerebrospinal fluid (Nature's method of lowering an increased intracranial pressure by permitting the patient to "decompress" himself), or of even irrigating the nose and the ears in order to "clean them out"—another method of introducing infection intracranially and with most disastrous results.

Acute Brain Injuries in Adults.—Progress in the diagnosis and therefore in the treatment of acute brain injuries has been very much retarded in the past by the mistaken conception of the importance of the presence or not of an associated fracture of the skull; the presence or not in these patients of an increased intracranial pressure due usually to a cerebral edema or to an intracranial hemorrhage is rarely considered unless of such degree and severity that the circulatory-regulating mechanism of the medulla is disturbed with the consequent clinical appearance of the signs of medullary compression and, if the intracranial pressure is not lowered, then the signs of medullary edema itself and—the death of the patient. The presence or not of a fracture of the skull in the patients having an intracranial lesion is of importance in the diagnosis and treatment **only** when there is present a depressed fracture of the vault—and these depressed fractures should always be elevated or removed for fear of future complications, and particularly convulsive seizures. Naturally, if the careful neurologic examinations do not reveal an increase of the intracranial pressure, as disclosed in the fundi by the ophthalmoscope or in the cerebrospinal fluid at lumbar puncture, by means of the spinal mercurial manometer, with or without the presence of blood in the cerebrospinal fluid, and no other intracranial lesion can be demonstrated clinically, then the diagnosis of the cranial injury as being one of "fracture of the skull" (if present) is a proper one in that it is the chief cranial lesion to be ascertained and comparatively of no great danger; but if there is present an intracranial

*Read before the Tri-State Medical Society, Charlotte, N. C., February 18-19, 1920.

lesion and especially a marked increase of the intracranial pressure—whether due to hemorrhage or to cerebral edema alone—then it must be considered in the treatment, both as to the immediate recovery of life and, of almost equal importance in these cases, the future normality of the patient; merely because a patient is able to leave the hospital within three or four weeks a so-called fracture of the skull does not indicate that this patient is "cured." Roentgenograms, however, should always be made as a routine procedure upon all patients having cranial injuries of even apparently trivial character; "latent" fractures may thus be disclosed and therefore the expectant palliative treatment of the patient be prolonged rather than the condition be considered of such little severity that the patient is not confined to bed longer than two or three days. Naturally, repeated ophthalmoscopic examinations, and at least one lumbar puncture, should always be performed in order that the true intracranial condition can be ascertained as early as possible and the appropriate treatment instituted.

In a series of acute brain injuries in over 600 adults during the past eight years, there was a marked increase of the intracranial pressure in only 30 per cent. of them, and naturally these were the only ones upon whom a cranial operation was performed—that is, only about one-third of the patients having acute brain injuries require the operation of subtemporal decompression and drainage, whereas the remaining two-thirds of these patients made excellent recoveries with the expectant palliative treatment of absolute rest and quiet, ice-helmet, catharsis and the routine treatment of shock, if present. The total mortality in this series of patients was 28 per cent., and if the patients who were admitted to the hospital in a moribund condition of extreme shock, medullary edema and severe internal injuries are excluded, then the mortality is lowered to only 19 per cent.

The most accurate method of estimating an increase of the intracranial pressure is by means of the spinal mercurial manometer; at the same time the presence or not of blood in the cerebrospinal fluid can be ascertained; the normal pressure is 6-8 mm. of mercury. The expectant palliative treatment usually suffices for these patients whose intracranial pressure does not exceed 16 mm., whereas a pressure exceeding 20 mm. is more safely lowered by an early subtemporal decompression—not after the advanced signs of medullary compression have occurred but in the early stages, whether the clinical signs of medullary compression of slow pulse—and respiration—rates with an increasing blood pressure have appeared or not; frequently the onset and development of these latter signs are so postponed and then are so rapid that the patient has advanced into the stage of medullary edema before sufficient time has elapsed to permit a mechanical relief of the increasing intracranial pressure. At best, the pulse- and respiration-rates and an increased blood pressure are crude and rather late signs of even a marked increase of the intracranial pressure, and of little value in anticipating an acute medullary compression. The ophthalmoscope is usually a much more reliable means of estimating an increase of the intracranial pressure; it is rare, however, to observe the condition of "choked disks" in these patients, as a papilledema or a swelling of that severity only occurs when the increasing intracranial pressure is of slow character as results from tumor formation or occasionally from a large extradural hemorrhage of gradual formation, otherwise an acute medullary edema would have been precipitated by the rapid rise of the intracranial pressure and—the early death of the patient before the appearance of "choked disks" would be possible. An edematous blurring of the nasal halves of the optic disks is the usual ophthalmoscopic report in the presence of an increased intracranial pressure of a height sufficient to indicate a subtemporal decompression as being the safer method of treatment rather than the continuance of the expectant palliative method—not only for the immediate recovery of life, but for the future normality of the patient.

The localization of the intracranial lesion in the treatment of these patients is of little importance compared with the presence or not of a marked increase of the intracranial pressure, whether due to hemorrhage or to cerebral edema. Naturally, in depressed fractures of the vault compressing the un-

derlying cortical cells, large extradural small circumscribed supracortical and hemorrhage or even the condition of cortical hemorrhage, these comparatively infrequent lesions should be removed and drained, but in the much larger percentage of intracranial injuries, the hemorrhage (if present) is a diffuse supracortical one and the almost always associated edema is a diffuse general one, and it is these two factors which cause the increase of the intracranial pressure, so that the treatment of these patients should be directed toward a lowering of this increased intracranial pressure—the expectant palliative method being sufficient for over two-thirds of the patients, whereas the operation of subtemporal decompression is only indicated when this increase of intracranial pressure is of marked degree—the remaining one-third of these patients. To attempt the removal of small subdural blood-clots through a trephine opening of the vault and especially in the presence of a high intracranial pressure, is not only meddlesome surgery and of little or no value, but a great danger of permanent damage to the underlying cerebral cortex; whereas, if the increased intracranial pressure is lowered by means of a subtemporal decompression and drainage and, if necessary, a bilateral decompression (in less than 5 per cent. of these patients), then the natural means of absorption make it possible for the patient to obtain the greatest chance of recovery; besides, through the decompression area itself is afforded an excellent means of exploration and drainage of blood-clots of almost the entire ipsolateral cerebral hemisphere. Even if a cerebral lesion in these patients can be localized—and it very frequently cannot be—it is of little value to expose it, since a large percentage of these lesions are lacerations of the cerebral tissue itself and the lowering of the increased intracranial pressure is the only means of benefitting the patient and obtaining the greatest ultimate improvement.

The most important and the difficult question in the treatment of brain injuries with or without a fracture of the skull is: "If an operatin is advisable, when should it be performed?" This question can more easily be answered by stating the two periods when the operation should not be performed. Naturally, we must exclude the majority (about two-thirds) of the patients having brain injuries with and without a fracture of the skull who do not have a definite increase of the intracranial pressure and therefore no cranial operation is indicated. (The depressed fractures of the vault naturally should always be elevated or removed.) The two periods in which an operation is distinctly contra-indicated in cases of brain injury, are, first, the condition of severe shock in the very beginning, and secondly, the condition of medullary collapse—the death knell of the patient. To advise a cranial operation upon a patient—no matter how badly the skull is fractured nor how extensive the intracranial hemorrhage seems, and that patient is in the condition of severe shock with a pulse-rate of 120 and higher, then the operation at that period of shock takes away whatever chance the patient may have of surviving the shock: the operation is but an added shock and merely hastens the exitus. No patient having a brain injury should be operated upon in this condition of shock; the mortality is most high, and if a patient does recover from an operation in this period of extreme shock then he recovers in spite of the operation. Cranial operations for brain injuries in this stage of shock were frequently performed in the past and most disastrously, and thus operations were almost discredited in the treatment of brain injuries. The natural reaction following these early operations in the period of severe shock was to wait until there could be no possible doubt that the patient was going to die, unless, as was thought, a cranial operation was performed; that is, the patient was permitted to reach the stage of extreme medullary compression—a pulse-rate of 50 and below, irregular Cheyne-Stokes respiration and pulse and profound unconsciousness, before a cranial operation might be considered. This is a most dangerous stage for these patients to reach, and it is doubtful whether recovery can occur even with an operation at this period, the mortality being very high. But if the patient has struggled through this period of medullary compression, and finally reaches the stage of medullary edema, when the pulse-rate begins to ascend quickly to 120 and higher, respirations become rapid and

shallow—that is, the stage of medullary collapse, then we have the second period when no patient should be operated upon—they all die—operation or no operation. Therefore, if these two extremes can be avoided and the latter of these, medullary collapse, can certainly be anticipated in the operative treatment of brain injuries and their signs cannot be overlooked, then the rational treatment from an operative standpoint depends upon the presence or not of a definite increase of the intracranial pressure, whether there is a fracture of the skull or not; in some of the most serious cases no fracture was present—either to be ascertained at operation in the operated cases, or at autopsy.

Chronic Brain Injuries in Adults.—If depressed fractures of the vault are excluded, then chronic brain injuries are in no way dependent upon the question as to whether the skull had been fractured or not at the time of the cranial injury; just as in acute brain injuries, the presence or not of a linear fracture of the skull is of little importance in estimating the true intracranial condition, the appropriate treatment and the prognosis, so in chronic brain injuries it is of no great value to ascertain that a fracture of the skull had occurred at the time of the original injury, except as an indication of a cranial injury of sufficient force to cause a fracture of the skull; as is well known, however, in many patients following a cranial injury, the skull may not be fractured, and yet the intracranial and cerebral lesion is frequently most severe and dangerous, both to the immediate life of the patient and to the future normality. Naturally, cranial roentgenograms in court as evidence of a permanent brain injury in these patients is more the result of enthusiastic ignorance than a real conception of the comparative unimportance of the linear fractures themselves.

In order to obtain more accurate data regarding the frequency of chronic brain injuries, I examined, in 1912, the records in three large hospitals in New York City, of their patients having had acute brain injuries during the decade of 1900-1910. The average mortality from the acute brain injury was 50 per cent.; of the patients who survived, following operation or no operation and were discharged as "well" or "cured," I could only locate 34 per cent. of them in 1912 on account of death from intercurrent disease, change of residence, and thus "lost," etc.; of these 34 per cent. of recoveries, however, I found that 67 per cent. of them were not well since the head injury: never the same man again," "always complaining," "cannot do a day's work," "queer ever since," "a bum," "a loafer," and the like; such were some of the minor complaints of both the former patients and the relatives, the latter observing the changes of personality following the cranial injury in a large number of the patients. The complaints of "severe pain in head," "dizzy spells" and not very frequently, but still an occasional patient "having convulsions"—it was this impressive array of symptoms in two-thirds of the patients found, and in many of whom a careful neurological and ophthalmoscopic examinatio ndisclosed the definite signs of a persisting intracranial lesion. (At the time of these examinations in 1912, the spinal mercurial manometer was not in use and the importance of an accurate registration of the pressure of the cerebrospinal fluid in patients of this character was not fully appreciated by the medical profession.) Among these post-traumatic and chronic cases there were a number of post-traumatic neuroses, either of the simple type associated with business, financial and domestic worries or of the complicated type superimposed upon a definite organic intracranial lesion and usually a chronic cerebral edema of mild degree; other patients exhibited increased and irregular reflexes, an occasional Babinski reflex, impairment of the special senses and the signs of an increased intracranial pressure as disclosed by the ophthalmoscopic examination of the fundi—usually an edematous blurring of the nasal margins and even the temporal margins of the optic disks—and in the absence of cardio- renal and cardio-vascular disease; the factor of chronic alcoholism, so common in many of these patients, was excluded as much as possible.

The usual intracranial lesion was apparently a chronic "wet" edematous condition of the brain following the cranial injury and due to either the result of a supracortical film or hemorrhage, which had not been entirely absorbed,

and thus naturally blocking in greater or less degree the normal excretion of the cerebrospinal fluid into the cortical veins and sinuses, or to the continued presence of the acute cerebral edema immediately following the cranial injury, but in milder degree, owing to its lessened and not complete absorption due to complications in the expectant method of treatment, such as alcoholism, intestinal and renal toxemias, emotional strain and other harmful factors in the complete recovery of the patient. The existence of supracortical adhesions resulting from the former subdural hemorrhage was also a factor, and especially in the presence of an increased intracranial pressure with which they were usually associated. These findings were associated in a number of the patients at operation, performed even at this late date following the acute intracranial injury, and the results have been very beneficial in many of them. Naturally, cerebral lacerations and intracranial lesions destructive of brain tissue cannot be remedied, and the patients are never operated upon unless associated with a definite increase of the intracranial pressure, which should be relieved, and thus a chance for improvement is even possible, which in these patients by lessening the pressure upon the normal cells adjacent to the ones primarily destroyed; not only can the signs of impairment be improved, but the symptoms of headache, dizziness, etc., can be relieved, and even entirely removed.

In brief, if depressed fractures of the vault, which should always be elevated or removed, are excluded, only those patients having chronic brain injuries associated with an increased intracranial pressure should be given the benefit of a subtemporal decompression in the hope and belief that a lessening of the increased intracranial pressure will permit a definite and permanent impairment, whereas, those patients in whom there is no increase of the intracranial pressure are naturally not operated upon—no matter how extensive the mental or physical impairment is—since the damage in these patients was a primary one occurring at or due to the original brain injury, and the operation of cranial decompression, if indicated at any time, was then rather than months or years later, and especially now in the absence of an increased intracranial pressure. This view cannot be too strongly emphasized because operations are being advised in these later patients with brain injuries in the absence of an increased intracranial pressure, and the results are bad, and they cannot but be bad, since the intracranial pathology cannot now be remedied.

Traumatic Epilepsy.—The condition of post-traumatic epilepsy is a most discouraging one from an operative standpoint, in that it is usually the result of a condition which could have been relieved at the time of the primary cranial injury and thus the epileptiform convulsions could have been avoided. Naturally depressed fractures of the vault should then be elevated or removed, for if permitted to remain until epilepsy of either the localized Jacksonian type or of the general convulsive type occurs (and it will occur in a large percentage of these patients), then it is frequently too late to obtain a good result, even if the depressed area of bone or foreign body irritating the cerebral cortex is removed, and especially after the so-called epileptic habit (resulting from chronic irritation), has been established; a cranial operation at this late date will in many patients be followed by merely a temporary cessation of the "spells," and within a period of one to three years the convulsive seizures are as numerous if not more frequent than before the operation. In my opinion, it is only those patients in whom the epileptiform attacks are few and of infrequent occurrence and in whom the increased intracranial pressure is not secondary and due to the convulsions themselves (and this can be ascertained by saturating the patient with triple bromides, luminal, etc., so that a convulsive seizure does not occur for a period of six weeks, and then estimating and co nparing the intracranial pressure accurately by means of the ophthalmoscope and spinal mercurial manometer with the intracranial pressure as registered before this non-convulsive period)—but an increased pressure which is primary to the convulsions and therefore a probable etiological factor; that is, by an operative removal of the original irritative object, as in depressed fractures of the vault and then a lowering of the increased intracranial pressure and thus a lessen-

ing of the cortical cerebral irritation, the patient is given in these selected cases a definite chance of a permanent improvement—if not, in rare cases, a cure itself. This careful selection of patients, both as to their general condition of mental and emotional deterioration, the infrequency of the convulsive seizures and the presence of a marked increase of the intracranial pressure and not secondary to the convulsions themselves (whether there is a depressed fracture of the skull or not)—these are the comparatively few patients, and the only ones, who can be benefitted by the cranial operation of elevation or removal of the depressed area of bone or other foreign body and combined with the operation of cranial decompression. This is late treatment of these patients —the condition should have ben avoided and prevented (and it usually can be); many of them become derelicts, so that any treatment, operative or not, cannot make it possible for them to regain their former good health and normality, but in the selected patients as outlined above it is not only justifiable but the only method now known of affording these patients a chance of recovery.

Brain Injuries in New-Born Babies and Children.—In new-born babies, acute brain injuries are usually the result of trauma at the time of parturition which may be either a difficult one with and without the use of instruments or even a so-called precipitate birth, in that the delivery is an unusually rapid one associated with a rupture of the thin-walled cortical veins, damage to the delicate intracranial structures may also occur in an apparently normal labor; these observations and diagnoses have been frequently confirmed by autopsies.

It has long been recognized that prolonged difficult labor, and especially if instruments for delivery are necessary, is of risk to the immediate recovery of the life of the child; this danger to life itself has been comparatively slight, and if the death of the child did occur, then it was realized (and occasionally confirmed at autopsy) that the intracranial contents had been so badly damaged that even if the baby had recovered, yet it could not have been a normal child—mentally and physically—and therefore it was merely considered an unavoidable and unfortunate result of a difficult labor, the object being to secure a living mother damaged as little as possible and then a living child, if possible. If the child was successfully resuscitated immediately after birth so that it was considered normal and not damaged intracranially, the prognosis as to future normality was naturally excellent—and in fact, this is the normal result. Even if the child was drowsy and stuporous for a period of ten days and longer, when it did not cry as new-born babies ordinarily do, or if it was of the excitable, restless type—crying almost continuously, and whether slight convulsive twitchings of any part of the body were present or not—the condition during an indefinite period of days following delivery was usually a temporary one only, so that it was not considered as being permanently harmful to the future of the child; in other words, the child "would grow out of it." And in the majority of babies with this immediate post-traumatic history the condition does gradually disappear, and fortunately no ill-effects are later to be observed due to the entire absorption of the intracranial hemorrhage and cerebral edema. There is a small percentage of babies, however, in which this happy result does not occur; either they remain in a comatose condition with and without convulsive seizures for several days and then die(and at autopsy an extensive subdural and usually a supracortical layer of hemorrhage is revealed, together with a very "wet" edematous condition of the brain) or they apparently become normal and were considered so until the sixth, seventh, eighth or ninth month later, when it is realized that the child is not developing as a normal child should—is not holding up its head, does not attempt to grasp and to hold things, notices little if anything, etc., and as it becomes older this retardation and impairment, both physically and mentally, becomes more marked; even at this late date of months, and especially without careful examinations, the parents may be told that nothing is really "wrong" with the child, "merely retarded," and "it will grow out of it." These children rarely do, however, when the condition is the result of a large intracranial lesion at the time of birth—usually a supracortical layer of hemorrhage with little or no primary damage to the brain itself,

and in the babies which cannot "take care of" this large amount of hemorrhage and cerebral edema by the natural means of absorption, then the effects of this intracranial condition associated with a definite increase of the intracranial pressure are later shown in a general retardation of the development of the child, both mentally and physically. Unless this increased intracranial pressure is relieved early—if not immediately after birth, then within several days, or if the condition is permitted to continue until the latter months of the first year and even later, then the lowering by means of a subtemporal decompression, and if necessary, then a bilateral decompression—although the longer this increased intracranial pressure is allowed to continue, either through ignorance, carelessness or mistaken diagnosis and judgment, just as much more permanent is the cerebral impairment in its mental and physical results. The differential dignosis at this late date is between that of lack of development of the cerebral cortex or its pyramidal tract fibres (of the so-called Little's disease), or meningitis and meningoencephalitic destructive process associated or not with embolic or thrombotic complications, hereditary lues (less than 2 per cent.), and then the condition of intracranial hemorrhage at the time of birth and of such large amount that the natural means of absorption have not sufficed to permit the normal lowering of the intracranial pressure of hemorrhage and chronic cerebral edema resulting from a partial blockage of the stomata of exit of the cerebrospinal fluid in the cortical veins, sinuses, etc., by the formation of this layer of supracortical hemorrhage; and thus, in reality, producing a mild external hydrocephalus similar to the condition of hydrocephalus, but in milder form, resulting from an extensive meningitic process which does not block the ventricles, and therefore producin gthe more common type of external hydrocephalus. These chronic brain injuries occurring in children who become impaired both mentally and physically, and particularly of the type of cerebral spastic paralysis, are of greater frequency than has been generally recognized. In the acute brain injuries, with and without a fracture of the skull occurring in children under twelve years of age, the immediate effects of an intracranial lesion can be withstood much more successfully than in adults—the initial shock is less, the reaction is much stronger and prolonged and they can recover from intracranial trauma as far as immediate life is concerned much more easily and with fewer immediate complications than is possible in adults; but the remote effects, however, of serious and prolonged intracranial lesions in children are more permanent in these patients later in life and they form a very influential factor in the future development of the child —both mentally and physically. It is this remote factor and result of intracranial injuries in childhood which have been rather neglected and overlooked.

Acute Brain Injuries in New-Born Babies.—It is not uncommon for acute injuries to occur in new-born babies during parturition—usually a difficult labor with and without the use of instruments, but it is rare for these intracranial lesions to occur associated with a fracture of the skull; occasionally depressed fractures of the vault and of the so-called "pong pong" type result, but it is unusual for a frank linear fracture of the flexible newly-formed bone to be demonstrated, either by roentgenograms, operation or at autopsy. If there is present in these new-born babies any abnormality of the base of the skull, then it is almost invariably a diastasis and separation of the suture lines with and without their overlapping, one over the other; the suture line most frequently involved is that median one between the two parietal bones and overlying the longitudinal sinus, which may thus be torn, permitting an intracranial hemorrhage of varying size to form over the cortex of one or both hemispheres of the brain—and this is the most common type of intracranial hemorrhage occurring in new-born babies as a result of the change of continuity of the bones of the vault. This separation of the suture lines and the overlapping of the adjacent bones rarely persists after birth longer than hours or days at the most, during the active second and third stages of labor, and then the bones resume their normal relation and position, but after the damage to the sinus has resulted. This is the reason why careful bimanual exam-

ination of the head of these children and still later roentgenogram planes only infrequently demonstrate the presence of the overlapping of the lines of suture. The frontal bone in its posterior relation to the parietal bones to form the canal suture, and the occipital bone in its anterior relation to the parietal bones to form the lamdoidal suture, are the next most common sites for the overlapping of their respective suture lines, and yet intracranial lesions only occasionally follow since there are here no underlying sinuses.

If the longitudinal sinus is not torn, and it is possibly one of the most frequent causes of the condition, then the next most usual source of the supracortical hemorrhage is a rupture of the delicate supracortical veins of either or both cerebral hemispheres as a result of a severe venous stasis and congestion occurring during a prolonged difficult labor; the hemorrhage may be only a local one—the size of a ten-cent piece or a silver quarter, and yet the associated cerebral edema following the cerebral trauma is always present, and may in many patients be the more serious factor. It is thus seen that the intracranial hemorrhage in these new-born babies rarely occurs in the cerebral cortex and in the brain itself and therefore causing a primary destruction of brain tissue (and no regeneration), but the hemorrhage is almost always subdural but supracortical—lying upon the surface of the brain—and its damage to the underlying cerebral cortex is one of pressure, due both to the hemorrhage itself and to the resulting cerebral edema; that is, if this supracortical hemorrhage and excess cerebrospinal fluid can be successfully drained and thereby the increased intracranial pressure be permanently lowered, then these babies will have an excellent opportunity to recover not only the immediate recovery of life, but that of future normality, and now is the ideal time for the appropriate treatment of these patients; later in life the impaired condition can be improved, but rarely is a perfectly normal child then possible.

No doubt there are many cases of latent intracranial hemorrhage at birth where there are no marked clinical signs of the presence of the lesion and where the natural means of absorption are sufficient to "take care of" the mild increase of the intracranial pressure—and a normal child is possible. And on the contrary, later impairments occurring in certain children in adolescence, such as mild mental retardation, emotional instability, and even epilepsy itself, may be due to a mild clinical sign not recognized or overlooked, and the later appearance of signs indicative of a former intracranial lesion with resulting adhesions, etc., and it is then usually too late to obtain a satisfactory result by any treatment now known. The treatment should be preventative whenever possible.

Although the labor itself, in these babies having an intracranial hemorrhage at the time of birth, need not be prolonged difficult one associated with the use of forceps, yet it very frequently is; also, the condition itself occurs most often in first babies of full term. The condition occasionally results even from a so-called normal delivery, although a difficult labor with and without the use of instruments is the usual history obtained. Any new-born baby which does not behave normally within the first two or three days after birth in that it is unusually drowsy and even stuporous, and especially in the presence of convulsive twitchings of any part of the body, that baby should be carefully examined for definite signs of an intracranial hemorrhage; a lumbar puncture is of the greatest diagnostic importance. If free blood is found in the cerebrospinal fluid, not only is the diagnosis confirmed, but an excellent means of drainage is thus afforded unless the pressure is high—over 15mm., as registered by the spinal mercurial manometer and associated with tense fontanelles and positive ophthalmoscopic findings. Doctor J. B. Sidbury of Wilmington, North Carolina, has contributed this marked advance in the treatment of these conditions of intracranial hemorrhage occurring in new-born babies. Daily repeated lumbar punctures with removal of 10-12 c.c. of bloody cerebrospinal fluid may be performed upon a number of consecutive days, until the pressure of the cerebrospinal fluid does not exceed 10 mm., and in these patients an excellent result is frequently obtained. In those babies, however, in whom the increased pressure of the cerebrospinal fluid reaches

a height of 15 mm. and even higher, and especially when associated with tense fontanelles and positive ophthalmoscopic findings of increased intracranial pressure, then a modified subtemporal decompression and drainage is most advisable in order to obtain not only a living child, but of the greatest importance—a normal child later.

Acute Brain Injuries in Children.—In children under twelve years of age, cranial injuries may be of comparatively trivial character, and yet the most serious intracranial lesions often result, with and without a fracture of the skull. In these patients, however, a fracture of the vault, and even of the base, occurs much more easily than in adults, and the relative importance of the fracture of the skull in brain injuries is not illustrated better than in a study of these patients.

Not only do children withstand better the immediate effects of the cranial injury, and especially the severity of the initial shock in that their reaction is a more vigorous one and thus assuring a higher percentage of immediate recovery of life, but it seems that the cardiac and respiratory centres in the medulla are more resistant and their circulatory mechanism more adaptable to sudden increases of the intracranial pressure; it is for this latter reason that the expectant palliative treatment can be used successfully in a larger percentage of children having brain injuries, both as to the immediate recovery of life and to the future normality, than is possible in adults in whom not only is the initial shock a most serious factor, but the sudden increase of the intracranial pressure is an only too frequent cause for early medullary complications of compression, and even medullary edema itself. In this series of brain injuries in children under twelve years of age, the expectant palliative method of treatment is alone sufficient and eminently satisfactory in over three-fourths of these patients, whereas the operative treatment to lower a high intracranial pressure, whether due to hemorrhage or excess cerebrospinal fluid by means of a subtemporal decompressin and drainage is only indicated in about one-fourth of the total number of these patients; naturally, and it has been repeated a number of times in this paper, all depressed fractures of the vault should be elevated (and this is more frequently possible than in adults) or removed, for fear of future complications, and chiefly that of cortical irritation with its resulting emotional instability, and even epileptiform seizures.

Cranial injuries, apparently of very trivial character and of such slight importance at the time of the "bump," may cause an intracranial lesion of the greatest danger—not only to the immediate life of the child, but also in its remote effects, later in life, upon the normal development—mentally, emotionally and physically.

Chronic Brain Injuries Occurring in Children.—The persistent effects of brain injuries occurring in children between the ages of two and twelve years are very similar to those occurring in adults with the important exception that since the mental and emotional "make-up" of the children is in the process of development, any prolonged impairment of function during this formative period is later exhibited in a greater retarded mental and even physical condition; especially is an emotional instability to be feared and if a definite cortical irritation is present to a degree that a mild chronic cerebral edema exists, then the danger of epileptiform seizures is one of not only great frequency but of the most serious consequences to the patient: if once convulsions occur, and especially if months and years after the brain injury, then the chances of benefitting the patient are just that much lessened, and the longer the convulsions persist the greater the improbability of any procedure being of assistance to the patient; on the contrary, epileptiform seizures occurring at the times of the acute intracranial condition or within a short period following it—these patients are frequently restored to a normal mental and emotional condition by the appropriate medical treatment.

Notwithstanding the fact that children withstand the acute effects of brain injuries much more easily than do adults, and particularly is this true of severe conditions of initial shock and of high intracranial pressure, many children having brain injuries have been carelessly treated and the remote effects of the intracranial lesion have been overlooked, merely because the patient has made an immediate recov-

ery of life; this latter result is all-important, but the future normality and good health of the child should also be considered. It has been recognized for a number of years that all depressed fractures of the vault should be elevated or removed at the time of the acute injury—not for the immediate benefit to the patient, but to lessen the danger of future impairment and complications, and especially emotional instability and epileptiform seizures; this routine method of treatment has been advocated chiefly in children on account of their developmental period of life when any intracranial lesion, however insignificant its present symptoms and signs may be, is, in its remote effects, frequently of a most serious character. The significance, however, of a persistent and chronic increase of the intracranial pressure following brain injuries in children, whose apparent excellent recovery from the immediate effects of the injury has been complete, has been overlooked, and it is only by examining these patients over a period of years that it is possible to state that these children—and they form less than 20 per cent. of all patients injured—do not later develop mentally, emotionally and physically as they should on account of the effects of a prolonged mild increase of the intracranial pressure; an emotional instability is possibly the most common result, a mental retardation, and, as stated before, the great danger of epilepsy itself. This chronic cerebral edema persists in children less frequently than it does in adults, but its ultimate effects are more pronounced in children on account of the immediate development of the cerebral nerve cells in all their activity; it is thus realized that the resulting functional impairment due to an increased intracranial pressure being prolonged over a period of months and years, may produce a definite organic change of tissue—and it is then irreparable. The treatment should be the appropriate one at the time of the acute injury and not months and years later—when frequently only an improvement can be obtained and not a normal individual.

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PERSONAL OBSERVATIONS OF THE EARLY INTERMEDIATE AND LATE TREATMENT OF 1,000 CASES OF INFANTILE PARALYSIS FROM AN ORTHOPÆDIC SURGEON'S VIEWPOINT.

By Dr. Alonzo Myers, 204 North Tryon St., Charlotte, N. C.

The problem of the treatment of Infantile Paralysis is best learned by observations of neglect and the results of treatment as observed during a large Dispensary Service in the City Hospitals, particularly those making a specialty of orthopædic conditions.

In my service at the New York Orthopædic Dispensary and Hospital, and during visits to Johns Hopkins University at Baltimore, the University of Pennsylvania at Philadelphia, Harvard University at Boston, and during my thirty-three months of War Surgery on the Orthopædic Services of the French Hospitals while associated with Dr. Jos. A. Blake in Paris, I have observed over 1,000 cases of Infantile Paralysis in its various stages, some that have received no treatment, others that had interrupted treatment and those that had careful treatment over a long period.

I shall not give a tabulated list of the different regions paralyzed, but rather a general resume of patients as they come to hospitals for treatment. These cases as they go from one dispensary to another become so anxious they are prone to accept suggestions and advice from either the laity or the profession, and are too willing to try anything with the hope of cure. Unfortunately many physicians offer bright hope of cure with electricity and the orthopædic surgeon sees the horrible results in deformity and disability that could have been prevented by absolute rest.

In the early or acute stages as seen during the 1916 epidemic in New York City, the best results were obtained by immobilization, either with plaster paris or braces, and rest in bed. After the painful stage is past, general massage and muscle training is started, and this must be done under the absolute direction and supervision of the orthopædic surgeon. Over-stretching muscles that are weakened but are not paralyzed must be carefully guarded against. These are the muscles that

are reported as cured paralyzed muscles, but in reality were only weakened muscles. Every muscle is essential in reconstruction, therefore, every precaution must be taken toward this end.

When the period of immobilization has passed and all deformities corrected, braces are indicated to hold in the corrected position. This period varies, and from six months to a year should elapse before strain either as to weight bearing or over-zealous exercises are allowed, and the patient should be carefully watched for an indefinite period.

In the intermediate stage some cases have been eneglected, others poorly treated, and here is where we see the deformities of Infantile Paralysis either from neglect or ignorance. Correction and braces are the procedures, operating when the deformity cannot be overcome with stretching under general anesthesia. Slight contractions may be corrected by stretching, while more extensive contractions require tendon lengthening, and tendon transplanting.

In the flail joints and the deformities due to the stretched ligaments and disturbed bony relations, we resort to immobilization by the various methods as the arthrodæsis of Jones and Davis in the foot, Myers in the knee (using the patella wedge) osteoplastic of the spine after Hibbs. Flail hips are most unusual, I having seen one only in a thousand cases, an arthrodæsis according to Albee will suffice here. When all deformities have been corrected it is of prime importance to hold them with braces and secondary if not of equal importance to begin muscle training. All cases should receive massage daily, and this followed by muscle training. Complete knowledge of anatomy and physiology is necessary to obtain an accurate diagnosis before outlining the muscle training exercises.

In the late stage when atrophy is present, and marked deformity due to the constant stretching of the unparalyzed muscle, massage and muscle training are particularly important since improvement has been noted in cases after thirty-six years duration as reported by Lovett of Boston, and as I have observed in my dispensary treatment where patients have wandered from one dispensary and clinic to another over long periods, after which systematic massage and muscle training resulted in marked improvement both functionally and æsthetically.

The desired results and treatment of Infantile Paralysis as detailed in this paper may be summarized as follows:

First: In the acute stages immobilization either with plaster or braces, rest in bed, and active treatment after tenderness has disappeared.

Second: Massage and muscle training.

Third: Stretching an operative correction of deformity followed by the application of braces.

Fourth: Constant supervision and attention over a long period of time.

GOITER—OBSERVATIONS ON APPROXIMATELY 1,500 CASES.*

By Samuel Orr Black, M. D., Spartanburg, S. C. Formerly member of the House Staff Jefferson Medical College Hospital, Philadelphia, Pa. House Surgeon, St. Mary Hospital, Rochester, Minn. Fellow of Mayo Foundation, University of Minnesota, Rochester, Minn. Officer, Medical Corps, U. S. Army.

For the three and one-half years prior to entering into the army, it was my privilege to have been associated with two of the largest surgical clinics in this country.

During that time approximately 2,000 goiter patients were admitted to the medical and surgical services of these institutions.

At one of them, 1,069 cases were operated upon in twelve successive months. Of these, 623 were Adenomatous Goiters, 342 were Exopthalmic Goiters, 64 were Thyrotoxic, 18 were Colloid Goiters, and 2 were Carcinomas of the Thyroid.

All types of goiter are far more common in women than in men. Of this entire series, there were less than a score of men.

During the last four or five years, Kendall has added much to the knowledge of the thyroid function and the nature of its active principle.

After using thirteen tons of thyroid gland, he isolated the active principle itself and termed it thyroxin. To date, through his experimental and research

*Read before the Tri-State Medical Society, Charlotte, N. C., February 18-19, 1920.

work, he has used over 20 tons of human and animal thyroids. When we recall that the human thyroid approximately weighs but a single ounce, we have some idea of the tremendous amount of the material that he has dealt with.

The thyroid, like all the other somatic tissues, is subject to a number of pathologic conditions and its anatomic and physiologic changes depend upon the nature of its disturbing agent.

The thyroid may be absent at birth. One may be born with the gland hypertrophied.

If the thyroid be absent or if it atrophies early in life, cretinism ensues. If glandular secretion ceases or becomes greatly diminished later in life, hypothyroidism or myxedema develops. In either condition, it can be remedied. When operating, leave about one-sixth of the gland in the adult and at least one-third in the child.

I have never seen a tuberculous thyroid nor have I seen a luetic one. Both conditions have been reported, however.

Goiters constitute a large type of the affection of the thyroid glands and they themselves are divisible into several varieties. The old classifications whereby all goiters were spoken of as either simple or toxic have recently been proven to be inconclusive, incomplete and misleading.

Wilson, by histologic study of several thousand specimens removed by operation, has furnished the profession with a most elaborate report of his findings in which he describes in detail two very large groups which apparently incorporate all the known varieties.

One of these groups is characterized mainly by a hyperplasia, advancing or regressing with a concomitant secretory disturbance, in which the thyroid secretion is either increased or decreased.

In the other group, he speaks of finding the gland enlarged in part or in whole, not through any hyperplastic change, but through an unwarranted retention or secretion, or through the development of Adenomatous tumors, made up largely of embryonic cells.

Taking these two classical pathological pictures as a basis, that masterful clinician, Henry Plummer, began a survey of the entire symptomatology presented by the same patients, whose glands Wilson had studied.

He went further still and laid down a clinical classification entirely different from any published theretofore. This he founded on the combined clinical and pathological pictures entirely.

The hyperplastic glands which had caused toxic symptoms, he termed hyperplastic-toxic goiters.

The non-hyperplastic glands which had caused toxic symptoms, he termed non-hyperplastic-toxic goiters and the non-hyperplastic glands which caused no toxic symptoms whatever, but produced trouble in a purely mechanical way he termed non-hyperplastic-atoxic goiters.

Of the three types, the non-hyperplastic-toxic goiter is far and away the most dangerous surgical risk, especially when far advanced, and the non-hyperplastic-atoxic is, other things being equal, the least dangerous surgical risk.

It is impossible to incorporate the details of all the varieties of goiter into a single paper and I shall refer principally to the non-hyperplastic-toxic variety, it being perhaps the least understood by the profession at large and then I shall speak briefly of cancer and abscess of the thyroid gland.

The non-hyperplastic toxic goiter is better known as the thyro-toxic goiter. It is one which produces the goiter heart as described by Kocher.

These patients as a rule give a history of an enlarged thyroid for a long time, 12, 15, or perhaps 20 years, which has never grown rapidly and which has caused very little concern.

As a rule they rarely attain any consderable size and usually manifest themselves as a single palpable adenoma. However, more of them will be found when the gland is exposed at operation in the greater number of cases.

The majority that I have seen, have been in elderly women, rather thin, wiry, and of a nervous temperament.

They come, complaining of headache, dizziness, insomnia, dyspnea, perhaps of fright, and usually they stress the fact that of late they have been suffering from a recurrent palpitation or undue forcibleness of the heart's action. In like manner, their kidneys have been troublesome. Some one has told them they have high blood pressure, another has called it Brights Dis-

ease, because of the presence of albumen, still another has diagnosed it arterio-sclerosis. In consequence, they are much alarmed over their general condition.

Practically none of these patients have ever suspected the small adenoma situated in the root of their neck as the true causative factor of their trouble and in fact hardly believe, when it is pointed out as the cause. "Why, doctor, I have had that for twenty years," is the reply.

All is not yet known of this type of goiter. Its chronicity in development of symptoms is unexplained, nor is it fully understood just why such a large proportion of them manifest cardio-renal symptoms. Is it due to some elective action of the altered secretion on these structures themselves, or is cerebral and nervous derangement back of the process?

There is absent the acute exacerbation of all the symptoms as evidenced in Graves Disease.

It requires over fourteen years for the earliest development of toxic symptoms.

The usual eye symptoms of exopthalmic goiter are absent, as are the gastro-intestinal manifestations. The extreme palpitation and cutaneous sensations do not develop as in cases of pure hyperthyroidism but there is, mind you, a definite pursuing unrelenting cardio-vascular and renal attack which if left alone will surely cause trouble, yea, much trouble, in the years to come.

Myocarditis ensues in practically every case, sclerosis of the blood vessels take place, functional and organic changes occur in the kidneys, brain, muscles, and other organs.

Notwithstanding a gradual increasing blood pressure year after year, the pulse pressure is rarely ever as high as it is in hyperplastic toxic goiter, where it is a finding of utmost diagnostic value.

Examination of these patients' hearts reveals an irregular intermittent beat, with an increase in the area of cardiac dullness and with an unusual accentuated aortic second sound.

There is no thrill over the thyroid gland, neither is there a murmur over the superior thyroid vessels as is so often the case in exopthalmic goiter.

I repeat therefore that it is entirely on account of the advanced visceral degenerations that these cases become such a risk, surgically.

Unless they are studied carefully, prepared accordingly, and handled by some one fairly well experienced in goiter work, the operator will almost surely find himself in trouble, either during the operation or some time shortly thereafter.

As a rule, they die of cardiac insufficiency, the heart suddenly goes to pieces, dilates, the pulse changes, increases, becomes smaller and smaller, the blood pressure comes tumbling down, the mentality suffers because of cerebral anemia, and the patient perishes in an incredibly short time.

Less than 20 per cent. of thyroid cancers occur in individuals under 40 years of age and the vast majority occur in the female; because it is they who suffer most from thyroid pathology.

Cancer is never seen in an otherwise healthy thyroid gland but when found, is practically always superimposed, so to speak, upon an adenomatous gland. I believe that chronic irritation is unquestionaly and absolutely an important factor in the development of malignant transformations.

It is impossible to correctly diagnose every case of early malignant goiter.

On the other hand, however, changes in the dimensions of a goiter which has been of a fixed size for several or more years and which suddenly begins to progressively enlarge, as the patient approaches or passes the 40 year mark, always should suggest malignancy, but one should rule out cystic degeneration and hemorrhage into the gland, before making the diagnosis of malignancy.

Further advanced cases of course will be comparatively easy to interpret. They are usually stony-hard, fixed, cause much dyspnea, change in voice, or difficulty in swallowing.

The mass may be large, irregular, nodular with or without areas of softening, or with areas of redness in the skin, which is beginning to thin, preparatory to rupture and ulceration.

The diagnosis rests mainly upon the history and palpitation of the tumor. Microscopic section should be made in all removed specimens.

The treatment is largely prophylactic. Prevent cancer of the thyroid by

operating on all adenomas within a comparatively short time after they develop. Explain the situation frankly to the patient and advise removal of the adenoma.

If cancer be unmistakably present and is still operable, a complete thyroidectomy should be done with the removal of as many of the cervical lymph glands as the condition of the patient will permit, or else do a two stage operation, removing the thyroid at one time and the glands at another. Reinforce the surgical procedure with X-ray exposures or radium therapy or better still with both and keep the patient alive with suitable doses of thyroxin, the active principle of the thyroid secretion.

Less frequent than cancer, is the acute suppurative thyroiditis or abscess formation of the thyroid. It produces pain, localized discoloration and tenderness, a fast pulse, a leucocytosis, an occasional chill and a temperature. In hospital experience where over 2,000 goiter operations have been performed, I have yet to see my first abscess of the thyroid. They are very rare. Fortunately, however, the blood supply to the thyroid is so rich that they heal with a remarkable degree of rapidity after incision and drainage.

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The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

DESENSITIZATION IN BRONCHIAL ASTHMA.*

By J. Morrison Hutcheson, M. D., Professor of Therapeutics, Medical College of Virginia, Richmond, Va.

In a paper presented before the nineteenth annual meeting of this association by Dr. S. W. Budd and myself,[1] the anaphylactic nature of asthma was discussed and the results following the use of an autogenous sputum vaccine reported. The good effects obtained from this vaccine were not fully explained; the question as to whether the apparent desensitization produced was specific or non-specific remaining unanswered. It is the purpose of this paper to consider therapy in asthma from a somewhat broader standpoint and in the light of the more recent studies that have been made on the subject.

The conception of bronchial esthma as a manifestation of protein sensitization has only comparatively recently been regarded as an established fact. However, several years prior to Meltzer's[2] explanation of asthma as an anaphylatic phenomenon, experimental workers in studying sensitization artificially produced in animals, and pointed out in a general way the direction in which relief of the condition is to be sought. As early as 1907 Besredka[3] described, in connection with the study of animals sensitized to horse serum, the production, by intraperitoneal or intracerebral inoculation of the serum, of a state he termed anti-anaphylaxis and which in his opinion amounted to desensitization or natural immunity. Numerous other investigators working with a considerable variety of proteins have clearly demonstrated not only that the desensitization of sensitized animals is possible, but also that it may be brought about by the injection of non-specific as well as specific proteins. In the experimental field, however, opinion seems to favor the administration of specific protein in gradully increasing amounts as the most certain means of inducing desensitization.

Clinical studies in connection with asthma have followed closely the lines indicated by laboratory work in anaphy-

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*Read before the twenty-second annual meeting of the Tri-State Medical Association, Feb. 19, 1920.

laxis. By means of skin tests, it has been found that approximately 50 per cent of all asthmatics are sensitive to one or more known proteins either of foods, animal emanations, pollens or bacteria. Furthermore, it has been shown that in these sensitive patients, by prevention of contact with the offending protein or by the injection of increasing amounts into the circulation. At the same time it has been observed that desensitization may often be brought about by the injection of non-specific protein even in patients where specific sensitization has been determined.

Concerning the production of desensitization as a practical remedy for asthma, there exists therefore a distinct difference of opinion. Danyz[5] has obtained good results in asthma from vaccine made from the patient's intestinal flora. He believes that all the good effects from vaccine or serum therapy are anti-anaphylactic and that these effects are not necessarily specific. Auld[6] advocates injections of peptone in increasing amounts holding that this is as effective as specific protein.

On the other hand Walker[7], whose elaborate and thorough work on the subject is authoritative, insists upon the superior merits of specific therapy. He issues a special warning against the use of non-specific injections, believing that the possibility of sensitizing patients to new proteins, outweighs the chance of improvement from such treatment. Cooke[8], Rackemann[9] and numerous other workers in reporting their observations indicate their endorsement of Walker's plan of treatment.

My own experience with desensitization in asthma has been confined largely to the use of autogenous sputum vaccines, the results of which I have observed in approximately 100 patients. These results which are probably specific have been good in 75 per cent of cases, regardless of sensitization, and I still consider the vaccines a most useful and practical remedy. However, in view of the fact that asthma is occasionally due entirely or in part to substances which can readily be avoided, provided they can be recognized, I am convinced that certain patients can be thoroughly and successfully treated only according to the indications arrived at from skin tests and I feel sure that practically every sufferer from asthma deserves such study. For instance certain women have asthma as the result of sensitization to compounds contained in the face powder they use while others suffer from contact with animal pets or even from sleeping on feathers taken from certain fowls. It is obviously illogical to attempt treatment in such cases on the basis of a bronchial infection purely.

In order to be absolutely sure about sensitiveness, almost an unlimited number of tests would be necessary, but for practical purposes such an assortment of proteins is not required since the majority of patients are exposed to only a limited number. As a routine, the common proteins derived from animal hair, bacteria, foods and pollens are used and additional tests are suggested by a consideration of the patient's history as regards habits, environment, diet, etc. Occasionally patients will indicate quite clearly from their own experience in the production of attacks, the protein to which they are sensitive.

The cutaneous test is most satisfactory and is carried out in the following manner. A number of small cuts are made with a sharp scalpel on the flexor surface of the forearm, sufficiently deep to penetrate the skin but not deep enough to draw blood. One of these is used as a control while upon each of the remaining cuts a protein is placed and a drop of tenth-normal sodium hydroxide added for the purpose of dissolving the protein and promoting its absorption. Positive reactions occur within thirty minutes and consist of a raised white elevation or urticarial wheal surrounding the cut. From the information thus obtained cases are classified according to etiology.

Patients sensitive to proteins of foods, bacteria, animal emanations or pollens are treated in the manner in which experience has shown that desensitization can be most readily produced. When bacteria are responsible every effort is made to eradicate foci of infection, and vaccines made from the organism to which the skin test is positive are given. When patients are sensitive to foods these are eliminated from the diet or diminished in quantity inducing thereby an automatic desensitixation. In the case of animal emanations, contact may be prevented when practicable

or artificial desensitization attempted by injections of animal extracts. Pollen sensitization is best treated by injections of the extract of the specific pollen.

In attempting artificial desensitization by injections, care should be taken to begin with very small quantities subcutaneously as with the use of too strong solutions, or with intravenous administration, disagreeable or even serious results may follow. Boughton reports death from anaphylaxis following the intravenous injection of one minim of normal horse serum. As a measure of safety a preliminary skin test may be done with the solution to be injected in order to exclude any extreme degree of sensitivity.

Not infrequently patients react to more than one protein and occasionally the combination of positives is such as to render specific treatment rather difficult. Under these circumstances, the degree of sensitivity to each protein, the probability of exposure and the special facility for desensitization to each should be considered in deciding on the plan of management to be followed. I have now a patient under observation who is strongly positive to horse dander and tobacco, and moderately positive to tomato and white of egg. The foods can easily be excluded from the diet while desensitization with horse protein can usually be accomplished by graduated injections. On this plan of treatment considerable improvement has been noted, but should it prove insufficient, desensitization to tobacco will be attempted by means of injections of the protein.

In the non-sensitive cases as determined by skin tests autogenous vaccines are our main reliance. These patients usually have an associated bronchitis which is in all probability the primary disease from which sensitization to bacterial products has taken place by direct absorption from the bronchial tract. The exact nature of the proteins elaborated by bacterial action on bronchial secretion is not understood, nor have they been sufficiently isolated to permit accurate study of their effects. Occasionally bacteria grown from the sputum or from foci along the upper air passages give positive skin tests, but there is considerable likelihood of the existence of intermediate products which are responsible for sensitization in the large number of cases now classed as non-sensitive. Vaccines may be made from all the bacteria obtained from sputum culture or from the predominating organism found. In my own experience published elsewhere[11] the mixed vaccine including the products of bacterial growth yield the best results.

Even in patients who are sensitive to one or more known proteins, there is often present a chronic bronchitis and autogenous vaccines may be required in order to effect complete relief of asthma.

In conclusion, I wish to emphasize the necessity for a more thorough study than our patients with asthma have heretofore received. The process is laborious and requires judgment and perseverance, yet there are few problems in medicine more fascinating than that of desensitization and few results that afford greater satisfaction than the relief of asthma.

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The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

Hint to Doctors.

Don't Make Promises Unless You Know How To Make Excuses.

"A CLINICAL REPORT ON PHYLACOGENS."

By J. C. Miller, M. D., Bonami, La.

Without going into a lengthy discussion of the merits or demerits of Bacterial Vaccines, or any modification of vaccine therapy, I will offer the following reports of cases treated with Phylacogens for what they might be worth to other physicians interested in the use of these therapeutic agents.

Case No. 1.—Male, age 40. Occupation: Mill wright. History: Muscular rheumatism for several years. Patient unable to work at his trade on account of rheumatism. Weight, 140 lbs. Treatment: Began with 1 c.c. Rheumatism Phylacogen subcutaneously, repeating the dose daily, gradually increasing the amount up to 2½ or 3 c.c. Following these larger doses the patient complained of slight rigor, which I considered a desirable indication. The 3 c.c. doses were continued until 30 doses in all were administered.

At this time the patient weighed 155 lbs. and was entirely relieved of all rheumatic symptoms. Patient then passed from under observation and was not seen for about eight months; at this time he weighed 170 lbs., no return of the rheumatism and he has enjoyed the very best of health.

Case No. 2.—Male, age 17. History: Sciatic rheumatism for several years, in bed most of the time. Treatment: Began with 1 c.c. subcutaneously, gradually increasing each subsequent daily dose until 60 c. c. in all were given. At the end of this time the patient was symptomatically cured. Close observation of this case for more than two years reveals the fact that the boy has had no return of the former condition and has developed into a strong, vigorous man, capable of doing daily manual labor.

Case No. 3.—Female. History: Septic endometritis. Temperature 105. Treatment: 4 c.c. Mixed Infection Phylacogen every six hours. On the fourth day temperature was normal; patient very comfortable. I had to leave town on the fourth day; placed patient under the care of another physician and the treatment was discontinued. On the fifth day there was a gradual return of the temperature and other former symptoms. Phylacogen treatment was not reinstated in this case and the patient continued to develop alarming symptoms and died a few days later.

In my opinion the septic condition of this patient was thoroughly under control at the time Phylacogens were discontinued. If the treatment had been continued, with gradually increasing doses, the patient would have had a better chance of recovery than she did have under the suspended treatment of Phylacogen.

Case No. 4.—Leg ground off under car wheel in railroad accident. Amputation performed and 4 c.c. Mixed Infection Phylacogen every day for three days. Notwithstanding the fact that the wound was badly soiled and the limb was wrapped in dirty, greasy clothing for three or four hours following accident, the patient made an uneventful recovery, healing by first intention.

Case No. 5.—Arm crushed off by falling tree. Patient presented for treatment three hours after accident. During this time the wound was wrapped in badly soiled clothing. Arm was amputated, patient given 4 c.c. Mixed Infection Phylacogen every day for three days. This case also made an uneventful recovery with prompt healing and no infection.

Case No. 6.—Colored woman; age 35. First examined in May, 1919. History: Bronchial asthma. Had been in the habit of taking hypodermatic injections of morphine 1.2 gr., atropine 1/150 gr., and nitroglycerin 1/100 gr., to relieve the pain and paroxysms. Patient had recurrent attacks of bronchial asthma at least once a week for the past five years. I applied a number of different remedies in this case, hoping to find something that would control the attacks, but invariably found it necessary to resort to the administration of narcotic hypodermatically. Finally decided to administer Mixed Infection Phylacogen. Began with ½ c.c. subcutaneously, increasing the dose ½ c.c. each day. This was continued until the patient was taking 3c.c. daily, with but very little reaction. At this time the symptoms had entirely disappeared. The dose was then increased to 4 c.c. every other day and this was continued until 60 c.c. were given. The 4 c.c. dose produced but little reaction. Although the patient seemed to be symptomatically cured of the asthmatic attacks, she

insisted that additional treatments be given. Finally decided to give 4 c.c. every other day until an additional 30 c.c. were given. The treatment was finished about the last of June, 1919, and the patient has not had a single symptom of asthma since she took the sixth dose of Mixed Infection Phylacogen, for a period of more than five months.

Conclusions:

1. In the administration of any of the Phylacogens to patients suffering from an acute, rapidly progressing infection, similar to Case No. 3, it is not safe to discontinue the treatment until the infection is entirely controlled. It is only fair to assume that the normal resistance to infection in such individuals is very much reduced. If the treatment in these cases is suspended before a complete immunity is established, a reinfection may be anticipated, that would probably be avoided by continuing the treatment.

2. In the treatment of rheumatic infection and bronchial asthma, the best results seem to follow the daily administration of Phylacogen with gradually increasing doses, following as near as possible the state of tolerance in each individual.

3. In selecting cases of asthma for treatment with Mixed Phylacogen, the so-called renal or cardiac asthma cases should be eliminated, except in so far as the primary causative factors in such cases might be attributed to some remote infection. Where the paroxysms are caused by a local, bronchial infection it is only reasonable to expect prompt results from the administration of Mixed Infection Phylacogen.

A CONSIDERATION OF SOME OF THE PROBLEMS INVOLVED IN THE TREATMENT OF CYSTITIS IN THE MALE.

By Leo. E. Grajewski, M. D., Urologist to the Jefferson Clinic, Detroit, Michigan.

In the presence of an attack of cystitis the practitioner's first duty is to make out what variety of cystitis he is dealing with, in other words what was the cause of the trouble. Is it due to prostatic hyperthrophy as is so often the case in elderly men, to calculus, localized ulcers, tuberculosis, gonorrhea, or mixed infection? Only when this question has been answered will it be possible to institute a proper treatment which requires to be both prophylactic and curative.

With the prophylactic form of treatment he will have in view before everything else, in predisposed subjects to obviate all possible influence tending to maintain the vesicle inflammation. In how many instances does it suffice to remove the prostate or to crush the calculus to witness the immediate disappearance of the characteristic symptoms: frequency of micturition, pain and pyuria.

I will not enumerate the clinical symptoms since they are more or less typical that their rehearsal would be superfluous, but will proceed to discuss our plan of treatment.

Up to the present time we are not in possession of a method which can be described as specific, but it follows that the prophylactic treatment in certain forms of cystitis is at our disposal and fortunately it is not devoid of efficacy.

The prophylactic form of treatment deals with the habits of life and diet of the patient, he must be put on his guard against chill, fatigue, local or general stimulation, which is likely to bring about a congestion of the pelvic organs. He must be given a restorative diet of digestible articles simply prepared. Milk is indicated during the acute attack. The state of the digestive function must be closely looked after and any tendency to constipation overcome. Intestinal antisepsis is a matter of great importance. Keeping his attention fixed on the functional condition of the bladder the practitioner must see that it is emptied regularly and completely. If necessary he must have recourse to periodical catheterization. Should the cystitis be of gonorrheal origin the lavages must forthwith be suspended. The only beverages allowed are hot infusions or feebly mineralized natural waters which act as a urinary lavage. To get the patients to pass plenty of water give them plenty of tinsanes, buchu, uva ursi, broom, etc. It is well, moreover, to bear in mind that prolonged hot baths exert a markedly sedative effect. Stimulate the junctions of the skin by friction especially with a horsehair glove. During the periods of depression between the acute attack, iron arsenic, manganese,

and strychnine yield good results.

Assuage the pain by ordering poultices with laudanum, hot enemata containing from three to four grammes of antipyrine with suppositories of hyoscyamus, belladonna, or opium. He must aim at urinary antisepsis by administering lithia, salol, boracic acid or urotropin, especially when the urine is very turbid.

The local treatment may be either medical or surgical, the former by lavages and instillations. The bladder is washed out by means of a large syringe, proceeding with every gentleness in order not to strain the vesical muscles. Any sort of a catheter will do. The essential feature is that it shall be provided with two good eyes and be of sufficiently large calibre. The solutions mostly employed are: 4% boracic acid, 1 in 1000 nitrate of silver, 1 in 250 protargol, etc. As antispasmodic preference will be given to antypirine. If the bladder happens to be particularly sensitive we can have recourse to instillations.

Instillations constitute the treatment of election in cases of grave cystitis. For this purpose we make use of nitrate of silver in fairly strong solution, 1 in 50 to 1 in 20, and even stronger. For that mater the strength is gradually increased as improvement sets in. After each instillation the patient must be made to lie first on the back, then on the abdomen and lastly on either side. If the nitrate of silver is badly borne and in cases of vesical tuberculosis we can employ a 1 in 1000 solution of perchloride of mercury or a 1 in 50 solution of protargol.

The surgical treatment according to circumstances deals with hypogastric or perineal section or both.

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"GHOSTS" AND "GHOST HUNTING."

By Axel Emil Gibson, M. D., Los Angeles, Cal.

From a standpoint of science nothing really dies. The process called death does not affect man himself, but simply removes him from the instrument, which, in the form of a physical body, has been offered him as a means of evolutionary service and usefulness while on earth.

The human soul grows in the body like a seed in the soil. And as the seed strikes root and takes expression in leaves, blossom and fruit, so in a corresponding manner the soul finds a field of growth in the midst of human vicissitudes, with opportunities to unfold into the wonderful attainments of virtue, beauty and power, with its final culmination in individual immortality, as the fruit of character.

But whether the soul is to be picked from the tree of life, a ripe mature fruit, or knocked down to rot on the ground, premature and worthless, depends upon the conditions the individual permits to influence and shape his life while yet alive on earth. For if the Great Gardener of Life does not find the fruits worth gathering, they will remain on the ground—a moral contagion to every life within their zone of influence.

Now these "windfalls" from the tree of life furnish the major percentage of the "spirits" that visit the seance room and bring us messages from the world beyond. And while we concede to the possibility of great and surprising exceptions, yet if we are to judge from the standard of messages, there can be no doubt that the "revelations," so often purporting to come from the souls of departed great men, are the fabrication of astral nondescripts,—"windfalls" of the spirit, which from their hiding places of molecular invisibility fake with the curiosity and credulity of ghost-hunting audiences.

Furthermore, by the strength of his affinity, the "spirit" attaches himself to such human personalities whose dispositions are of the very nature that made up his own moving interests while concretely alive on earth. He is the same old "good timer" as before his demise, in possession of every faculty and inclination of his earth-life, minus only the physical body—the tool or instrumentality necessary for the operation of his sensuous nerve-life.

Thus we have the situation of a diseased entity writhing under the tyranny of all his old unconquered passions, yet without the nervous apparatus by which to satisfy the hunger and thirst of his wide-awake and unweakened vices. This necessitates the expediency of some kind of a sensory go-between, a psycho-physiological relay-station in the form of a human organ-

ism by which the "spirit" may find a gratification of its passional desires and sense-cravings, through the thrills of the nervous excitation of the living personality.

It is here we have a basis for what we so often find referred to in the annals of spiritualism—ancient and modern—as "obsessions." In other words, "obsession" is the effort of a disembodied, "earth-bound" and degenerate spirit-entity to gratify his lusts and cravings through the nervously overstrung organization of an impressionable, more or less psychologized individual (medium).

The opium dens, gambling resorts and even spiritualistic seance rooms, are the favored haunts for these invisible ghouls of a degenerate posthumous humanity, and where they easily secure victims for their ghostly sports, at the nerve-racking, life-sapping, reason-beclouding expense of the unfortunate men and women who patronize these places of horror. Through a process of "psychic wire-tapping" the indulged senses of the subject will be played upon and made to send thrills of sensuous response into the psychic nature of the obsessing spirit.

On the other hand, as the mere chemistry of death has no power whatever to change the moral foundation of human nature, and turn a long career of vice into the triumph of exalted virtue, it is only logical to surmise that there must be as many liars and blackmailers masquerading on the other side of the great divide as there are on this and consequently that it would be very unwise to accept a message from a "spirit" on no other foundation for its genuineness than the circumstance that the messenger happened to be dead.

And this logic holds equally good if the case is turned around, for if death has no power to transform a scamp into a sage, or a demon into an angel, neither can we concede to it the power to pervert a towering master mind into the status of a cheap poser and ignoramus. For if the messages accredited to have come to "mediums" from such superminds as Victor Hugo, Walt Whitman, Channing, Xorcaster, Julius Cæsar, Henry James, Shakespeare, Ingersoll and Roosevelt, etc., are genuine, there can be no doubt that the evolution in "spirit land," in place of moving onward, moves backward.

As a last word it may be said that the way to reach our departed friends should not be to rudely awake them from their well earned peace, by turning on the psychic alarm bell of a professional "medium,"—but rather so to live and work, that when the final summon comes we shall be borne by the very forces of our own exalted nature into the zone of beauty, power and harmony occupied by those to whom we aspire.

In other words: "He that seeks his life shall lose it, while he that gives shall win it everlastingly."

THE COMING SPLIT IN THE RANKS OF THE MEDICAL PROFESSION.

Geo. H. Tichenor, Jr., A. B., M. D., Associate Editor Western Medical Times; Member American Medical Editors 'Association.

We are not surprised to learn from the lay press that certain physicians and nurses in New York City have formed labor unions and applied for admittance into the American Federation of Labor. The pharmacists had done the same thing following the example of the School Teachers Federation. Likewise there has been formed a Middle Class Union similar to the one in England. In other words, the middle classes found themselves being ground between the stones of organized capital and organized labor are compelled to take this step or enforced poverty. The European economic condition will soon present itself in reality at our doors, and unless the intelligent men of this country face the problem intelligently, the greatest tragedy in the world's history is due. No amount of camouflaging of the so-called controlled press is going to relieve and satisfy the people of this country that democracy can exist when the two per cent of the people who own from 60 to 78 per cent. of the national wealth continue to increase their wealth enormously while the rest of the populace become poorer according to income statistics. The various expedients for throttling the press, such as refusal of advertisement in papers where editorials are inimical to the vested interests, and attempts to gag free speech under the guise of passing alien laws against the terrible condition of a few hundred ignorant aliens trying

to control one hundred and sixty million people would be highly ludicrous if it were not an attempt to nullify the constitution framed with the flood of our American forefathers. Fortunately the Woman's Voters' League recognized this "bull" and gave it the denunciation it deserved, following in the footsteps of the American Federation of Labor.

Today, the lines of battle are being sharply defined. The Washington Times, December 26, 1919, tells us editorially that three organizations of service men were merged, the World War Veterans, the Rank and File Veterans, and the Soldiers, and the Sailors and Marine Association under the name of World War Veterans, Incorporated. "The World War Veterans are composed chiefly of men who strongly favor freedom of speech, of printing, and assemblage. They will not assist to put down strikes or act as strike breakers. They are opposed to backing other citizens on account of race, descent or religious belief. Their platform is brief, 'The Constitution as it is written, and the democracy for which we fought.' It claims a membership of five hundred thousand."

bership and their voting relatives of the

When we consider the combined mem-American Federation of Labor, the Railroad Brotherhoods, the Steel Workers' Union, the Miners' Union, the Non-Partisan League which stand for the same principles as the World War Veterans, it is logical to expect a political economic upheaval which will defeat exponents and representatives of the Trusts in all parties, if properly co-ordinated.

What does this mean for medicine? It means the gradual democratization of the profession. Physicians are beginning to rebell now against the attempted practice of medicine by the State, State treating venereal diseases, etc.—a paternalism in medicine which will save the employer from paying his labor enough to live and pay for his doctor. Our Boards of Health and Federal Health Organizations will be compelled to adhere to their proper sphere, State sanitation. The English system of State medicine which has been so advantageous to England's ruling class seems of late to have the approval of our American aristocracy, judging from the late press propaganda and legislative attempts to regulate the profession. Our profession knowing the English and Spanish experience is going to fight this scheme to a finish. We are going to have a split in this country as in Spain. We are going to win as our confreres in Spain. In Jerez de la Fontera, Spain, where the labor union idea among physicians is acute, the municipal authorities played politics and broke their contract with physicians, so the latter went on a strike, headed by Dr. Aranda, a distinguished surgeon and a splendid fighter, he was supported by the public and the physicians won.

The split in our profession is going to come from the opposition of physicians pensioned or representatives of the vested interests who hold positions dependent upon the charity of some corporation. Already our medical journals are beginning to line up according to their financial interests. Some of our medical societies do not line up to the rule of forbidding its members taking associations and contract work.

The general practitioner is getting tired of being exploited either by his leaders or anyone elese. It has ceased to be a joke, the fact that the average doctor's income equals the insurance solicitor and is used as a "drawing card" in obtaining insurance agents by their companies. If the medical societies do not act or rather are not allowed to function in this respect, we can expect medical unions all over the country as at present in New York. Let us democratize and Americanize the profession. The first step is direct election of representatives; next, the enforcing of the rule against contracts by action of our State Examining Boards, refusing to reciprocate with States whose societies permit its members to form contracts with associations and industries. American charity will be defined, seeing that American labor gets its rights, so it can get any doctor it wants The days of "Bull" are over.

The next annual meeting of the Tri-State Medical Association will be held in Spartanburg, S. C., on the third We dnesday of February, 1921.

The German Finance Minister Erzberger, socialist, having been charged with questionable transactions, has resigned.

Charlotte Medical Journal

Published Monthly.

EDITORS

M. L. TOWNSEND, M. D.

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CHARLOTTE, N. C.

ANNOUNCEMENT.

The continued publication of the CHARLOTTE MEDICAL JOURNAL will be uninterrupted.

To take up the work of another and follow as he would the plans he had formulated is a difficult task. To pick up the raveled ends of a broken chain and splice them together again can scarce be done without leaving a scar and bump.

The new management of this journal in undertaking the work as left off by Doctor Register have outlined some very definite policies for its future. Such changes as may be from the past routine will be made with the conviction that thus we can better serve our readers.

Original articles and case reports will be selected with the utmost care and only those will be published which teach sane and ethical medicine. In all the flurries of enthusiasm which tend to flare up here and there along some new and special line it is sometimes difficult to steer a straight and true course toward the polar star of our real ambitions. A commentator on the life of Hipocrates refers to him as a steady and level headed man with sound judgment, who was not easily influenced by the various enthusiasms of the moment but plugged away at the momentous task of perfecting a real medical science.

In all the history of medicine the pendulum has been swinging first this way and that. How few of all the myriad things in the pharmacopœa of the ages stand today as recognized curative agents.

Our purpose shall be to keep our eyes on a definite goal and that goal must be the very best service to our fellow men and confreres.

If it failes in this purpose the editor begs that you make that fact known to him and any corrections that may be necessary and epxedient will be most gladly made.

With the honest, earnest co-operation of all it can and will succeed.

"FLU."

We are ever hearing the remark, "The Flu is bad enough this year but nothing like it was last year."

The onset of any epidemic comes like a storm increasing in severity and in its toll of victims until it reaches a certain point which marks its crest, then gradually and slowly subsides. A graphic chart of any epidemic whether Flu, Yellow Fever or what not would remind one very much of the chart of a Typhoid patient.

This has been explained of course by the fact that the susceptible persons are the first to become affected and then the less susceptible and so on down until only immunes are left.

Certainly there are those susceptibles who may for a long time escape contact and hence through all the "convalescence" of an epidemic there will be this sprinkling of severe cases.

The Influenzal attack of last year was severe because of the general economic conditions and because there had accumulated a large number of susceptibles during the preceding years of comparative freedom.

Formerly it was generally accepted that one attack of Grippe predisposed to another. This certainly is not the case in the "Flu" and we have this year a sort of left over affair affecting those who then escaped contact or had body resistance sufficient to cause an immunity. These latter for any one of many reasons may now have a lowered vitality and hence only a partial immunity.

The inherent tendency of doctors is not so extremely different from that of all mankind and we are very much inclined to pat ourselves on the back when a patient does not die. We are very much inclined to say in the case of the Flu situation, "The medicine did it."

The doctors of any community mould to a large extent the status of the family and community at large in its attitude toward disease. If the doctor loses his head so will the patient most surely.

The sacred duty of every doctor is to teach his people the fundamental prin-

ciples of sane living and hygienic surroundings. No malady is more obviously mitigated by these precautions than is Flu. These principles should be so conspicuously posted in the mind and life of every medical man that all with whom he comes in contact may read and re-read.

The following are the instructions and directions promulgated by the Health Department of a Virginia city. They are just plain common sense and are equally applicable at all times in all places.

These directions are for the Superintendent of Schools:

1. The temperature of the room should not rise above 72 degrees F., nor fall below 65 degrees.

2. No child should sit in school with wet feet or with rubbers kept on.

3. Any one with pronounced symptoms of a bad cold should be sent home and the Health Officer notified.

4. Rigorous attention should be given toward prevention of swopping pencils or anything that goes into the mouth.

. The room should be kept ventilated, but the body of the child should not be chilled.

6. No sweeping or dusting should be done until pupils are all dismissed, but the room should be kept scrupulously clean.

7. Children should be instructed in the above and in the facts in accompanying circulars.

These directions are for the theaters:

1. See that the house is ventilated at all times and that it is most thoroughly ventilated at least once a day when no spectator is in the building. At this time the house should be thoroughly cleaned, but avoid raising dust.

2. See that the temperature does not fall below 65 degrees F., nor rise above 72 degrees.

3. See that every one in the house has a seat, and that no standing room be sold or standing allowed. This is in order to prevent undue crowding.

4. Any one that continuously sneezes or coughs should be requested to leave the building, by order of the Board of Health.

Rules for avoiding Influenza:

Avoid people who are coughing or sneezing. Do not mingle in crowds or large gatherings. Keep three feet from person talking. Cough or sneeze into a handkerchief or turn your face downward. Don't use cup or other eating utensil without boiling it. Wash your hands before eating. Keep the room filled with fresh air night and day, but always keep the body warm and feet dry. Eat simple, nourishing food. If you get influenza, go at once to bed and stay there several days after the fever is gone to escape pneumonia.

PROPOSED MERGER OF THE TWO VIRGINIA COLLEGES OF MEDICINE.

From time to time the union of the Medical College of Virginia, in Richmond, and the University of Virginia Medical Department, at Charlottesville, has been agitated, and much sentiment friendly to the amalgamation developed, but always a sufficiently strong adverse influence has prevented its consummation. A recent article in the Virginia Medical Monthly suggests that with the General Education Board having recently added $4,000,000 to the already handsome endowment of the Vanderbilt University Medical College in Nashville it would be wise for the powers that be in Virginia to secure the union of the two excellent Virginia medical colleges with a view to also partaking of the benefactions now being handed out for the advancement of medical education, and intimating that such a proposition now would likely carry.

More recently Gov. Westmoreland Davis of Virginia, in his annual message to the legislative bodies, strongly recommends the taking of steps toward that end, and a committee of two representatives, and three senators to be associated with five appointees of the Governor, have been provided to take the matter under advisement and report.

Just what this committee will advise, or what the final result will be it is impossible to predict, but it is safe to say that sooner or later such organic union, or merger, will take place, and to the benefit of the cause of medical education in Virginia and the South. With the two primary years in the classic environs of the justly celebrated University of Virginia at Charlottesville, and the two latter years, with the fifth or hospital year, in Richmond with its more ample hospitals, and its splendid

corps of physicians and surgeons, the peers in every particular of any on earth, we cannot conceive of a more favorable situation for the development of scholarly minds and trained efficient hands in matters medical and surgical than would be presented by the amalgamation. We trust within the next few months to announce its final consummation, and the receipt by the re-organized college of its full share of the large funds now becoming available for the improving of the facilities of medical colleges in the South.

THE MIND AND SECRETION.

The normal functioning of the internal secretions determines in a goodly measure the health of the body. Internal secretions are under the guidance of the sympathetic nervous system. The sympathetic is in a high degree responsive to the emotions. Broadly speaking, the emotions are of two types, viz., those of courage and fear. Courage, hopeful expectancy and a cheerful viewpoint of life in general is positive and exerts a benign influence upon secretion and glandular activity. Fear, pessimism and "blue devils" are negative and have a baneful influence upon secretion. Here is the basis of nearly all healing.

HEADACHES.

Headaches are known by various names, as nervous, sick, congestive, etc. Autotoxemia is perhaps the greatest causative factor. In addition to calomel, salines and a bitter tonic, the value of sunshine and outdoor exercise in these cases can not be over-valued. Many women who have frequent attacks of headache do not get sufficient sleep to restore equilibrium to the nerve cells and ganglionic centers. A bromide may be indicated. The bromides were our main-stay in headaches before coal tar came and we got along very well without the latter. Plethoric, full-blooded people may be benefited by alterative and depletive treatment. Anemic and run-down people should have iron and supportive treatment. Headache patients do not as a rule drink as much water as they should. They should eat an abundance of fruits and a good deal of "rough stuff" in order to favor elimination. If the patient desires something to "rub on" a mixture of menthol and chloroform will answer the purpose.

THE DOCTOR HIMSELF.

The personality of the doctor is the main thing that distinguishes him from other members of the profession. A pleasing personality covers up a lot of ignorance and is most valuable stock-in-trade. It is a great art to be able to say the right thing at the right place, and to say just enough and then quit.

The personal appearance of the doctor is important. He can always look neat and tidy and present a clean face. The doctor who essays to have a sagely look often acquires whiskers. Walt Mason, the well-known versifier, satirizes the doctor and whiskers by saying that he, Mason, would not patronize a doctor without whiskers. His hirsute appendage always brings so much confidence, Mason says.

Perhaps sympathy and a genuine interest in patients are qualities that most endear people to a physician. That's why they will send into another county for you rather than patronize the man across the street. The successful physician is always the man who can in some way best known to himself inspire hope and confidence in his patients. Generally speaking, a pleasing personality is one of his best assets.

From Teacher to Nurse.

Miss Ruth McCallum, formerly of the Maxton Phone Exchange and who went to Anson county to teach school, was compelled to close the school a few weeks ago onaccount of the influenza epidemic, and the school house is now a hospital, with Miss Ruth as a nurse therein.

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

Editorial News Items

TRI-STATE ASSOCIATION MEETS IN SESSION IN CHARLOTTE.

Despite the handicap of a very busy season for the doctors throughout the three states the twenty-second annual convention of the Tri-State Association was one of the best and most helpful which this association has ever held.

About one hundred out of town doctors attended this meeting and every one seemed to bring with him abundant enthusiasm and interest in the work and welfare of the society.

Never have the doctors responded more loyally to the invitation to prepare original articles for presentation and never were these articles better prepared. A total of about seventy-five papers were prepared and presented for discussion.

Invited guests who presented papers were Dr. Wm. Sharpe, New York; Dr. Gordon Wilson, Baltimore, Md; Dr. Tom A. Williams, Washington, D. C.; Dr. J. Shelton Horsley, Richmond, Va., and Dr. John H. Gibbon, Philadelphia, Pa.

The preliminary session was opened at 10 a. m. February 18th in the auditorium of the Selwyn Hotel by Dr. A. J. Crowell. Dr. Crowell expressed the pleasure of the Mecklenburg Medical Society at having the association as its guest. Rev. A. A. McGeachy offered the invocation.

Mayor McNinch on behalf of the city as a whole told the society that the city was theirs without the asking.

Dr. C. M. Strong, president of the Mecklenburg Medical Society, welcomed the association in behalf of the society and promised the visitors that every doctor offered himself as a committee to give them a good time while in the city.

The response was made by Dr. Pressley of Greenville, S. C., who in most eloquent terms said that the doctors of the association were glad of the opportunity to meet in Charlotte.

Dr. Crowell presented the president, Dr. Robert C. Bryan of Richmond, Va., who chose for his subject of the president's annual address, "What the World War Has Done for Medicine." Dr. Bryan presented some interesting figures concerning the part played by the Tri-State doctors in the great world war. He gave statistics showing that Charlotte gave to the service a higher percentage of her doctors than any other city in the United States. Next after Charlotte's 36.6 per cent., came Galveston, Texas, with 34.4 per cent. of her doctors.

The program in the main followed that which was published in the February issue of this journal and was only varied in a few cases because of the inability of a doctor to attend.

Because of the large number of papers and the serious intent of the doctors to get the very best possible out of this meeting the sessions continued without intermissions for recreation and entertainment.

Mrs. Yates Faison saw that the ladies were cared for and Dr. A. J. Crowell received the doctors in his offices between ten and twelve the night of the 18th. Dr. Crowell, as he always does, made a perfect success of this reception.

A striking coincident of this convention was the death of Dr. Register the morning of the 18th. Dr. Register was a charter member of this society, worked tirelessly for the society's best good, and seldom if ever missed a meeting. That the society should be in session in his home town the day of his death seemed hand of Providence.

At 10:45 a. m. February 19 the meeting adjourned and the Tri-State Medical Society as a body joined the family and friends in paying a last tribute of love and reverence for Dr. Register. The services were conducted at the Tryon Street Methodist Church.

At the business session the following officers were elected for the ensuing year: President, Dr. J. P. Munroe, Charlotte, N. C.; Secretary, Dr. James K. Hall, Richmond, Va.; Vice-President, H. F. Hedges, Charlottesville, Va.; Vice-President, Dr. W. W. Fennell, Rock Hill, S. C.; Vice-President, Dr. J. A. Williams, Greensboro, N. C. The members of the Executive Council for three years include Dr. Charles Mobley of Orangeburg, S. C.; Dr. W. L. Peple of Richmond, Va.; and Dr. J. P. Matheson of Charlotte, N. C.; for two years, Dr. W. O. Spencer ,Winston-Salem, N. C.; Dr. J. K. Hall, Richmond, Va., and Dr. Julius H. Taylor, Columbia, S. C., for

one year, Dr. Matt O. Burke, Richmond, Va.; Dr. E. C. Register (deceased to be supplied), Charlotte, N. C., and Dr. F. H. McLeod, Florence, S. C.

The association will meet next year in Spartanburg, S. C.

ADDRESS OF WELCOME IN BEHALF OF THE MECKLENBURG COUNTY MEDICAL SOCIETY.

By Dr. C. M. Strong, Charlotte, N. C.

Members of the Tri-State Medical Society, Ladies and Gentlemen:

When I was asked by the Committee of Arrangements to make this address, I asked if this was the best they could do and they said no, but I was the logical one to do it, as I was the president of the Mecklenburg Medical Society. I wish therefore that you will consider it a logical one.

You doubtless know that the Bacillus Oratoricus is not indigenous to North Carolina but was born and bred in Virginia and South Carolina and we got it by continuity and contiguity, and as I have a natural immunity and my exposure slight you can't expect a severe infection.

But it does not require a severe infection to tell you we are glad to have you and I hope I have enough of the proverbial oleoresin pinus calcis to hold me on the floor and should I chance to fall below, I know you will view me with a critic's eye and will not pass my imperfections by.

I am glad to represent the Mecklenburg Medical Society, one of the largest and since I have been president the best in North Carolina, or possibly the three states.

If you don't understand "auto" terminology, you may not know what we are talking about here in Charlotte, for only last week we had a big auto show and our papers with characteristic Charlotte modesty, in small foot notes stated, that Charlotte was the largest auto distributing point in the South. Therefore you will pardon me if I try to describe our Medical Society in auto terms. They cover every branch of the service and can supply all parts on short notice. We have a few Packards, many Hudson Supersixes, a few John Henrys, a few 12s and 8s, but mostly six cylinders; all shapes of hoods and large radiators, large head lights (no dimmers) and very small tail lights, bodies of all shapes from the large upholstered Limousine to the stripped racing type.

Most all are water cooled at present, but have a few hot air cooled types. Semi-eliptic springs and a few underslung, none of them have shock absorbers because they cannot be shocked, most of them are self starters, but have a few cranks left.

All have the latest shift gears, none have breaks; mostly use gas as fuel but few have been known to run quite a distance on alcohol alone. They all climb the steepest hill in high, but make great noise because they use the muffler cut out and they back fire occasionally.

All are well equipped with horns and don't fail to blow them and often exceed the speed limit. Have the anti-skid tires, but have been known to skid fearfully at times, punctures are common, accompanied by great noise owing to the sudden escape of air.

Their radiators rarely freeze owing to the timely use of anti freeze. On the whole they are up to date machines and get there just the same and we are glad to represent them. They offered themselves as a whole at their country's call and more than our quota went with the colors and three made the supreme sacrifice. We, like you, are 100 per cent. Americans. In their name I welcome you.

We are glad to have you here for what you are, the representative of the greatest altruistic profession, whose realms deal with the hidden mysteries of life and death, who carries on his heart the suffering world; on his brow the wrinkles of feverish care, whose pleasures are marred by his great responsibility; his sleep and dreams disturbed by phantoms of sorrow which leads by the sick bed, the coffin and the sepulchre, no wonder that his shoulders early stoop, his head whiten and his mortuary liability high.

Our doctor hearts go out to you, my brothers, for the world does not know or understand the mental and heart loads we carry, or see our bloody sweats at our Golgothas, help us to bear our heavy cross or give us wine on our Calvary. While with us, we hope you will leave your troubles behind and that time in its flight may make you a child again even only for a night.

Then we are glad to have you for the

citizenship you represent and because we three states have so much in common, we were together from Lexington to Yorktown, marched shoulder to shoulder in the Sixties from Bethel to Appomattox, worked together in the trying times of reconstruction and crossed the Rhine together, and should still stand together in this crisis of our world's agony and as the South may be called upon to save our nation and the world for democracy, so we may be called upon to save America's and the world's medicine.

Then as a representative of Charlotte, the Queen City of the iPedmont, though not the largest in the three states, yet we have within a radius of 50 miles more than 500,000 people. (I don't know whether you can beat that or not.) This is because we are the heart of a great industrial section and in her behalf I welcome you. We have a big heart and long arms and with one of these we reach up to the quiet Potomac (though it's not very quiet on its north at present) and grasp our old sedate-brunette Sister Virginia and with the other, slide down the Savannah and clasp our fair impetuous blond South Carolina.

We will take the cedar of Virginia and the palmetto of South Carolina, entwine them around the old North Carolina pine and press you to our Great Midlothean Heart and thrice kiss you welcome and may your too short stay with us be profitable and pleasant to us all.

Response by Dr. E. W. Pressly, Greenville, S. C., Tri-State Medical Society Meeting, Charlote, N. C., Feb. 18, 1920.

"Time rolls its ceaseless course. The race of yore,
That danced our prattling infancy upon its knee,
And told our marveling childhood legends store
Of their strange ventures happed by land and sea,
How are they vanished from the things that be,
How few and these all weak and withered of their force,
Upon the brink of dark eternity, await
Like stranded wrecks the tide returning hoarse
To sweep them from our sight,
Time rolls its ceaseless course."

In its revolutions time has brought us again to the opening day of the Tri-State Medical Association and finds us in the city of Charlotte, where the Mecklenburg patriots in May, 1775, declared themselves independent of the power and authority of Great Britain. It is with peculiar pleasure that the speaker finds himself in his present position, viz., that of replying to the addresses of welcome from the city and the medical profession. For thirty years he lived near to the North Carolina line and practiced for her citizenry and now that he is farther away from them his memories of the loyalty of this brave, honest, noble people are to him as fragrant as the breath of Sharon's dewy rose, as fair as the lilies that grew by cool Siloam's shady rill, as sweet as the song of birds, as welcome as the flowers in spring, as entrancing as the mystical whispers that come from the wings of the blest, and as soothing as the sound of music on the waters when the moon has crested the waves with a silver panoply.

"Still o'er these scenes his memory wakes
And fondly broods wi' miser's care
Time but the impression deeper makes
As streams their channel deeper wear."

As he knew these people no trait of character stood out more prominently than their loyalty. Loyalty is defined in the New International Dictionary as follows: Loyalty: — Fidelity as to prince or sovereign or leader, as to husband or wife or lover, as to one's faith, one's idea, one's religion, as to friends, as to country, etc., and various writers at sundry times have illustrated, let us say have illuminated, the different specifications of this definition. Thus Sir Walter Scott in the poem, "The Lord of the Isles," illuminates the idea of loyalty to a leader in the following word picture. The setting of the picture is this: Since the day of "Flodden's fatal field" Scotland had been subject to England and had been oppressed by her as was the evil custom in those evil days. Numberous efforts had been made to throw off this yoke, notably that by Wallace "who dared to nobly stem tyrannic pride or nobly die the second glorious part," and by Robert Bruce and now coming back from exile with a few ragged followers around him Bruce is about to make a second attempt and appeals to his followers to aid him in one more effort in behalf of their

country's freedom, and this is the spirit that enthused them:

"And young and old and serf and lord
And he who'd ne'er unsheathed a sword
And he in many a danger tried
Resolved alike the brunt to bide
And live or die at Bruce's side."

While nowhere in all literature has the idea of loyalty to one's faith been more beautifully depicted than in the words of the Hebrew captives who, with harps hanging on the willows sang, and wept as they sang—"Jerusalem, God's holy hill, If I of thee forgetful prove, Let my right hand forget its skill, With grace the harps sweet strings to move. If I do not remember thee, Let my parched tongue its utterance cease, Or o'er my chief joy I do place Before Jerusalem's joy and peace." The idea of loyalty to a friend is beautifully depicted by Burns in his lament over the death of the Earl of Glencairn. The setting of this picture is this: The poet all his life had known only hard and granding poverty and his necessities had often been aided by the wealthy Earle. And now the Earl was dead and the poet pours a tribute over his bier in which occurs these wonderful lines:

"The bridegroom may forget the bride
Was made his wedded wife yester e'en,
The monarch may forget the crown
That on his brow an hour has ben,
The mither may forget the bairn
That smiles sae sweetly on her kne
But I'll remember thee, Glencairn
And all that thou hast meant to me."

While infinitely more sweetly is it expressed in the words of the Moabite maiden of forty centuries agone: "Entreat me not to leave thee nor to return from following after thee. For whither thou goest I will go, where thou lodgest will I lodge, thy people shall be my people and thy God my God. Where thou diest will I die and there will I be buried." While the beauty of loyalty to one's country is illuminated by Sir Walter Scott in the poem,—"Ivy of the Last Minstrel," by showing the deformity of the corresponding vice of disloyalty:

"Breathes there a man with soul so dead
He never to himself hath said
This is my own, my native land?
Whose heart has never within him burned
As home his footsteps he hath turned
From wandering on a foreign strand.
If such exist then mark him well
For him no minstrel's raptures swell.
High though his title, proud his name,
Boundless his wealth as wish could claim,
Despite his titles, power and pelf,
This wretch concentring all in self,
Living shall forfeit fair renown,
And doubly dying shall go down
To the vile dust from which he sprung,
Unwept, unhonored and sunsung."

While Thomas Moore in his Irish melodies says to the same point:

"Better a grave or a prison illumed by a patriot's name
Than the trophies of all who have risen on their country's ruin to fame."

And Lord McAuley in his "Lays of Ancient Rome" in the ballad of "Horatius at the Bridge" used these stirring words:

"Then outspoke brave Horatius the captain of the gate,
To every man upon the earth death cometh, soon or late,
And how can man die better than facing fearful odds,
For the ashes of his fathers and the temples of his Gods."

Loyalty such as we have endeavored to depict in the above quotations has ever characterized the citizenship of this state. It was the loyalty of the mountain men of Wautaga and Nollichucky to liberty that brought them to the aid of the hard-pressed Whigs of South Carolina and enabled them on that glorious day in October, 1781, to send the riderless horse of Captain Ferguson with flying mane and dangling stirrups, down the wooded slopes of Kings Mountain, to kill or capture every member of his command and to break forever the backbone of Tory domination in South Carolina.

It was loyalty to home and loved ones and native land that made her sons first at Bethel, that carried them farthest at Gettysburg and made hers the last guns to roar defiance at Appomatox. "A King once said of a prince struck down, Taller he seems in death. And the words were true and now as then, it is after death we must measure men, and as the mists of the years are rolled away, your heroes who fought in their tattered gray, grow greater and grander in all their parts till they fill our minds as they fill our hearts."

It was loyalty to home and civilization and religion that carried her sons of the 119th Infantry through the inferno of Flanders and first across the hell of the Hindenburg line. And it was

loyalty to all that is best and noblest on earth that made her tarined nurse daughters leave the comforts of home and the courtesiest and amenities to which they had all their lives been accustomed, for the confinements and discomforts of the barracks, the restraints of discipline and familiarity with disease and blood and agony. And it was loyalty to these that carried them calmly and cheerfully to their work and some of them to their death, as I myself saw, when on the stillness of the midnight air, or amid the calmness of noonday, the attentive ear might hear the beating of the wings of the Angel of Dealth as he rode on the blast of the influenza; and of every one of these, those who survived and those who went down in war's red gulf, this may with truth be said, "A better soldier never drew a blade."

"In them Heaven's best gift to man is yours,
God bless those noble girls;
Like Sylvan flowers they sweetly shone,
Their hearts were pure as pearls."

Are those of us not native to the soil glad to be with you today? Is the man long immuned in the darkness of a dungeon glad of the sight of stars and sky and the feel of open spaces and freedom? Is the thirst stricken traveler in the desert glad to find in his last extremity, an oasis with waving plams and cooling shades, with purling brooks and crystal lakes, where the earth is carpeted with verdure and the heavens are garnished with gladness; well so are we glad to be here and when our work is concluded and we leave you we shall not say, "good-bye," but "au revoir."

Then here's to Carolina,
The darling of the East,
A blessing on those who live here
And God pity all the rest.

American Medical Editors' Association.

The Fifty-first annual meeting of the American Medical Editors' Association will be held at the Grunewald Hotel, New Orleans, La., on Monday and Tuesday, April 26th and 27th, (during the week of the A. M. A. Convention) under the presidency of Dr. Seale Harris, Editor of the Southern Medical Journal.

A most interesting program has been arranged and every doctor, even remotely interested in medical journalism, will find it to his advantage to attend.

It is advisable for you to make early reservation of rooms to assure you of accommodations.

Dr. Drew S. Harper of Camp Funston recently visited at his home at Snow Hill, N. C. Prior to his entrance into the army, Dr. Harper was a member of the Winston-Salem Health Department.

Dr. and Mrs. J. R. Paddison of Kernersville are guests of Dr. and Mrs. E. C. Brooks on North Blount street, Raleigh.

Harold Glascock, M. D., Surgery; Amzi J. Ellington, M. D., Medicine; Ivan M. Proctor, M. D., Gynecology and Obstetrics, announce their association for the practice of Medicine, Surgery and Diagnosis. Offices: Third floor, Masonic Temple, Raleigh, N. C.

It will be of interest to the Medical Profession of Charlotte to know that Miss Edith Ree, Graduate Sweedish Masseuse, has located in Charlotte with offices in the Presbyterian Hospital.

Dr. J. M. Manning, Durham, N. C., has been appointed Medical Director for the State of North Carolina for the Modern Woodmen of America.

At **the December meeting** of the Forsyth County Medical Society, Dr. S. D. Craig was elected president. Dr. V. M. Long was elected secretary to serve for the year of 1920.

The Moore County Medical Society at their recent meeting elected the following officers for the year 1920: President, Dr. M. E. Street, Glendon, N. C.; vice-president, Dr. Gilbert M. McLeod, Carthage, N. C.; secretary-treasurer, Dr. A. McNeil Blair, Southern Pines, N. C.; delegate to State Society, Dr. A. McNeill Blue, Carthage, N. C.; alternate to the State Medical Society, Dr. Gilbert McLeod, Carthage, N. C.

On December 10th at a meeting of the Randolph County Medical Society the following officers were elected: President, Dr. C. C. Hubbard; secretary-treasurer, Dr. T. I. Fox; delegate to the State Society, Dr. T. I. Fox, and alternate to the State Society, Dr. T. C. Craven.

At a meeting of the Johnston County Medical Society the following officers were elected: Dr. G. S. Coleman, Kenly, N. C., was elected president; J. F. Martin, Benson, N. C., vice-president, and Dr. Thel Hooks, Smithfield, N. C., secretary-treasurer.

At a recent meeting of the Union County Medical Society the following officers were elected for the year 1920: President, Dr. R. Armfield, Marshville, N. C.; vice-president; Dr. H. D. Stewart, Monroe, N. C.; secretary-treasurer, Dr. R. L. Payne, Monroe, N. C.; delegate to the State Medical Society, Dr. S. A. Stevens, Monroe, N. C.

At a meeting of the Surry County Medical Society held in Mt. Airy, N. C., on December 9th, the following officers were elected for 1920: Dr. R. E. L. Flippin, president; Dr. E. M. Hollingsworth, vice-president; Dr. Moir S. Martin, secretary and treasurer. The delegate to the State Society is Dr. J. B. Smith; alternate, Dr. J. M. Reece.

Dr. B. C. Nalle announces that Drs. J. H. Caldwell and E. R. Hipp are associated with him in the practice of medicine and surgery.

Drs. Matheson and Peeler announce that they now have associated with them Dr. Henry L. Sloan. Diseases of the eye. Offices, 511-516 Realty Building, Charlotte, N. C.

At the annual business meeting of the Davidson County Medical Society December 2, the following officers were elected for the ensuing year: President, Dr. E. J. Buchanan; vice-president, Dr. J. E. Hobgood; secretary-treasurer, Dr. E. F. Long; delegate to the State Medical Society, Dr. D. J. Hill; alternate, Dr. C. A. Julian. A material increase inthe fee scale was adopted, effective January 1st, 1920.

Dr. Emory Graham Alexander of Philadelphia was recently married to Miss Harriett Deaver, also of that city.

Dr. Alexander is a son of Captain S. B. Alexander of Charlotte, N. C., and a brother of Mr. Thomas W. Alexander. He graduated at the Jefferson Medical College in 1904. Dr. Alexander organized the Philadelphia hospital unit which was one of the first hospital units mobilized after the outbreak of the war. He was commandant with the rank of major in the A. E. F. medical corps.

Mrs. Alexander is the daughter of Dr. and Mrs. John Deaver of Philadelphia.

Transportation for Railroad Surgeons.

The railroad bill as it has passed the House of Representatives has had the clause eliminated from it which would forbid free transportation to railroad physicians. Those who act in a professional capacity for railroads will continue to have the privilege of free railroad transportation.

She Has No Occupation.

She rises up at break of day,
And through her task she races;
She cooks the meal as best she may,
And scrubs the children's faces.
While schoolbooks, lunches, ribbons, too,
All need consideration,
And yet the census man insists
She has "no occupation."

When breakfast dishes all are done,
She bakes a pudding, maybe;
She cleans the rooms up one by one,
With one eye watching baby;
The mending pile she then attacks,
By way of variation,
And yet the census man insists
She has "no occupation."

She iron for a little while,
Then presses pants for daddy;
She welcomes with a cheery smile
Returning lass and laddie.
A hearty dinner next she cooks
(No time for relaxation).
And yet the census man insists
She has "no occupation."

For lessons that the children learn
The evening scarce is ample,
To "mother dear" they always turn
For help with each example.
In grammar and geography
She finds her relaxation,
And yet the census man insists
She has "no occupation."

—Elsie Duncan Yale, in Woman's Home Companion.

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

Nurses Corner

For the purpose of promoting sentiments of the most kindly feeling and a more intimate mutual understanding between the nursing and medical professions, or rather between the nurses and doctors, for really nursing is only a phase of the medical profession, the JOURNAL desires to have the nurses represented in its pages.

Between the doctor who gives the orders and the nurse who executes those orders, and who in the absence of the doctor must assume the responsibility of the case, there should be the most complete and thorough understanding. The paramount thought in the mind of each is the very best interest of that patient.

The Nurses' Corner will welcome from nurses discussions of the problems that confront them and will also be glad to publish news items of personal and general interest. Please use this corner for getting acquainted.

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

Forty-Nine Cent Dollar.

During the last six years the rising scale of prices has reduced the purchasing value of the dollar from $1 in 1913 to $0.495 in 1919.

Taking the prices of 1913 as a base, the wholesale prices of farm products have soared from 100 to 220. Food has gone to 204; cloth and cloth products to 231; fuel and light to 181; metal and metal products to 172; lumber and building materials to 160.

Chemicals and drugs went to 216, but fell to 179; household furnishings rose to 233; and miscellaneous articles to 206. The average of all these items is 202.

The net result of the price increases has been to reduce the purchasing power of the dollar to 49½ cents as compared with 1913. This means that any individual whose salary has not been doubled since 1913 is working under an actual decrease in compensation.—School Life.

Book Notices

"Urology," by Victor Cox Pedersen, A. M., M. D., F. A. C. S. Publisher, Lea and Febiger, Philadelphia and New York. Illustrated with 362 engravings, of which 152 are original and 13 colored plates.

This is really a text book of Urology in men, women and children. It shows a uniform discussion of the clinical side of the diseases included, for the benefit of students and general practitioners. The stages of incubation, invasion, establishment and termination are described so that the student receives a word-picture of the important affections and learns the course and prognosis not as afterthoughts, but as integral elements of the various cases.

Physical treatment, including hydrotherapy, heliotherapy and electrotherapy is well discussed.

Under the heading of treatment, after treatment is carefully considered, and the standard of cure briefly stated so that the reader will understand exactly what degree of relief should be reached before the patient is discharged.

"Yours for Sleep," by William S. Walsh, M. D. Publishers, E. P. Dutton & Company, 681 Fifth Ave., New York. Price $2.50 net.

"God bless the man who invented sleep," said Sancho Panza, and people living in the high tension of the twentieth century are coming more and more to agree with him and realize the important part played in their lives by sleep as experience reveals what lack of it does for them. It is, or should be, as natural to rest the bodily organs as to use them.

In this non-technical authoritative hand-book the author makes a broad and careful inquiry into the causes of insomnia and gives common-sense practical directions for its alleviation and cure.

The subjects treated include: The Physiology of Sleep, Insomnia and Its Causes, Worry, Neurasthenia, Indigestion and Constipation, Hypertension and Arteriosclerosis, Eye Defects, Value of Exercise and Fresh Air, Hygiene of the

Bed and the Sleeping Room, Remedies for Sleeplessness.

"The Narcotic Problem," by Ernest S. Bishop, M. D., F. A. C. P., Clinical Professor of Medicine, New York Polyclinic Medical School; Member Narcotic Committee, Conference of Judges and Justices of New York State; Committee on Habit Forming Drugs, Section on Food and Drugs, American Public Health Association, etc. The Macmillan Co., New York. Price $1.50.

Dr. Bishop states in lucid terms just what the narcotic problem is and how it may be controlled. His pronouncement will give a message of hope, not only to the addict, but to physicians, administrators, legislators, and others interested in the solution of this terrible problem.

The author's statement is plainly that there is an addiction disease and this real disease should be treated as are other diseases. This is in direct opposition to the general conception that addiction is a "vice," a "habit," a "morbid appetite," and should be punished socially as well as legally. The way in which its victims are spoken of as "drug habitué," or "drug fiend," or "dope fiend," shows scientific neglect of it and apathy and indifference on the part of those who ought to be better informed.

Dr. Bishop is not connected in any way with any so-called drug cure or specific, but has developed his understanding of drug addicts from wide research and long experience.

"Practical Organotherapy: The Internal Secretions in General Practice," by Henry R .Harrower, M. D., Fellow of the Royal Society of Medicine, London; late Professor of Clinical Diagnosis, Medical Department Loyola University, Chicago; founder of the Association for the Study of Internal Secretions; etc. 268 pages, with 5 charts; cloth, $2.50. Glendale, Calif. The Organotherapeutic Review, Publishers, 1920.

In this work Dr. Harrower has set down the fundamentals upon which present day organotherapy has been built. Upon these fundamentals he builds up a super structure of real worth. He clearly sets forth the "why" and "how" of a much misunderstood yet valuable branch of therapeutics.

Neither the clinician nor physiologist perhaps really understand how the harmones of the glands of internal secretions are made and used. It is certain, however, that they do exist and are secreted into the blood or body fluids and distributed throughout the body to "correlate the activities of the origin with the remote but associated organ that it influences."

A new book on a comparatively new subject and worth reading.

"Modern Surgery: General and Operative," by J. Chalmers DaCosta, M. D., Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Eighth edition, revised, enlarged and reset. Octavo of 1697 pages, with 1177 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, $8.00 net.

Dr. DaCosta has come back again with the eighth edition of his wonderful book, "A Manuel of Modern Surgery." He comes with an apology for the difficulties under which the tedious and arduous work of revising was done but he comes with all the clear exposition of the most refined surgical technique which has characterized the former editions and in addition also with the last word in all that has been developed in modern surgery from war experiences.

He gives credit to many others of the world's best men for the particular part they did in this complete book.

There was a demand for just such a book and Dr. DaCosta has filled this need most fully.

"Food for the Sick and the Well," how to select it and how to cook it, by Margaret J. Thompson, R. N., Yonkers-on-Hudson, New York. World Book Company.

This is a practical volume. It was finished on the anvil of experience in arranging, changing and adapting foods so as to form a well regulated diet for the sick and for convalescents, as well as for those who are well and wish to remain so.

The housewife as well as the physician and the nurse will find in this volume a valuable help and guide. The text discusses the relation of food to

health and the necessity of a balanced menu.

There are receipts for breakfast cereals, breads, eggs, soups, meats, fishes, cereals and starchy vegetables, green vegetables, salads and desserts, cakes, albuminous drinks, jellies, canned fruits, and cheese dishes.

An additional section of the book devotes itself to treatments such as baths, sponges, hot-packs, salt-rubs, poultices, mustard plasters, enemas, douches, and directions for the proper way of filling hot-water bag.

An index of several pages will enable people to find what they are looking for in a hurry.

This practical little volume of recipes and suggestions on diet has been prepared at the earnest solicitation of the author's many friends and of the physicians who have entrusted to her care many of their patients. Miss Thompson has had years of experience in the care and feeding of the sick, and during all that time she has been a close and earnest student of dietetics from a practical standpoint.

The housewife as well as the physician and the nurse, will find in this volume a daily valuable help and guide in feeding those who are in ill health, as well as those who are trying to keep well.

Work.

I am the foundation of all business. I am the fount of all prosperity. I am the parent of genius. I am the salt that foundation of every fortune in America, gives life its savor. I have laid the from Rockefeller's down. I must be loved before I can bestow my greatest blessings and achieve my greatest ends. Loved, I make life sweet and purposeful and fruitful. I can do more to advance a youth than his own parents, be they ever so rich. Fools hate me; wise men love me. I am represented in every loaf of bread that comes from the oven, in every train that crosses the continent, in every newspaper that comes from the press. I am the mother of democracy. All progress springs from me. Who am I? What am I? I am Work.—New England Craftsman.

Miscellaneous

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1919, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Ichthyol.—An aqueous solution, the important medicinal constituents of which are ammonium compounds containing sulphur in the form of sulphonates, sulphones and sulphides. These products result from the sulphonation of the tarlike distillate obtained from the bituminous shales found near Seefeld in the Tyrol. Ichthyol is weakly antiseptic and mildly irritant. It is used locally on the supposition that it will secure the absorption of swellings and effusions in contusions, burns, etc., and especially in gynecologic practice and in various skin diseases. Ichthyol has been tried internally in a great variety of conditions, but its therapeutic value in many of its suggested applications has not been fully established. Merck and Co., New York (Jour. A. M. A., Jan. 3, 1920, p. 30).

Veronal-Sodium.—A brand of barbital sodium complying with the N. N. R. standards. For a discussion of the actions and uses of barbital sodium, see New and Nonofficial Remedies, 1919, p. 83. The Winthrop Chemical Company, Inc., New York.

Procaine-Calco.—A brand of procaine complying with the N. N. R. standards. For a discussion of the actions and uses of procaine, see New and Nonofficial Remedies, 1919, p. 30. The Calco Chemical Company, Boundbrook, N. J.

Typhoid-Paratyphoid Bacterin (Special Bacterial Vaccine No. 13).—Marketed in 5 cc. vials, each cubic centimeter containing 1,000 million killed B. typhosus, 750 million killed B. paratyphosus "A" and 750 million killed B. paratyphosus "B." For a discussion of typhoid vaccine, see New and Nonofficial Remedies, 1919, p. 292. E. R. Squibb and Sons, New York (Jour. A. M. A., Jan. 3, 1920, p. 31).

Mercurochrome-220.—A preliminary

report of the Council on Pharmacy and Chemistry discusses the experimental status of this new germicide for use in the genito-urinary tract. While the lack of confirmatory evidence of its value does not permit more than a tentative acceptance, the available data may be sufficient to warrant its use by physicians, provided its experimental therapeutic status is recognized. Mercurochrome-220 (marketed by Hynson, Westcott and Dunning, Baltimore) is stated to be dibromo-oxymercury fluorescein. It is a red powder, insoluble in water but soluble in alkalis. According to Young, White and Swartz, Mercurochrome-220 is a strong and rapidly acting germicide which penetrates the tissues readily and is tolerated in 1 per cent. solutions by the bladder, renal pelvis and urethra. Only temporary discomfort is caused when a 2.5 per cent. solution is applied to the anterior urethra. Its toxicity is high, but no systemic effects have been observed following its local application (Jour. A. M. A., Jan. 3, 1920, p. 31).

Chinosol.—Oxyquinolin Sulphate.—Chinosol is a powerful, nontoxic antiseptic, somewhat stronger than mercuric chloride and considerably stronger than phenol. It is a feeble germicide, being weaker than phenol and much weaker than mercuric chloride. Chinosol is claimed to have marked analgesic power and to be an efficient deodorant. Chinosol is also marketed in the form of Chinosol tablets 0.25 Gm. Parmele Pharmacal Company, New York.

Dubois' Iodoleine.—Iodized poppyseed oil. An iodine addition product of poppyseed oil. Dubois' Iodoleine may be used whenever iodides are indicated, its effects being more gradually exerted. It is supplied as Dubois' Iodoleine capsules 0.25 Cc., equivalent to 0.1 Gm. iodine, Dubois' Iodoleine injectable, containing 30 per cent. iodine ,and Dubois' Iodoleine injectable ampules, equivalent to 0.3 Gm. iodine. David B. Levy, New York (Jour. A. M. A., Jan. 10, 1920, p. 104).

Thyroxin.—4, 5, 6-trihydro-4, 5, 6-triiodo-alpha-oxy-beta-indole proprionic the thyroid gland. Thyroxin is used essentially for the same purposes as acid. An active principle obtained from Dried Thyroids, U. S. P. It is indicated in some cases of diminishing or absent thyroid functioning, such as simple goiter, cretinism or myxedema. Thyroxin is supplied only in the form of tablets for oral administration, containing, respectively, 0.2, 0.4, 0.8, and 2 Mg. of thyroxin. E. R. Squibb and Sons, New York.

Thromboplastin Hypodermic-Squibb.—A sterilized extract of cattle brain in physiological solution of sodium chloride. It complies with the description of thromboplastin-Squibb, but a longer time is required for the clotting of blood plasma. It is intended for hypodermic and intramuscular injection to increase the coagulability of the blood. E. R. Squibb and Sons, New York (Jour. A. M. A., Jan. 10, 1920, p. 105).

Names for Phenolphthalein.—The following is a partial list of names under which phenolphthalein and phenolphthalein preparations and combinations are or were advertised: Alophen, Cholelith Pills, Elzernac, Ex Lax, Exurgine, Laxophen, Laxine, Laxiconfect, Laxothalen Tablets, Paraphthalein, Phenalein, Phenolax Wafers, Phenolphthalein Laxative, Urobilin, Prunoids, Purgatol, Purgen Konfect, Purgella, Purglets, Purgo, Purgolade, Purgotin, Purgylum, Phuphen, Thalosen, Veracolate, Zam Zam. What a Babeldom would arise in medical practice if this business policy of manufacturers to present their products by coined names were encouraged by the patronage of physicians. Self-respecting manufacturers owe it to the progress of medical science to do away with such camouflage for revenue only and the medical profession owes recognition to these manufacturers by prescribing products by their scientific names (Jour. A. M. A., Jan. 3, 1920, p. 29).

"Antipneumococcic Oil" and Camphor in Pneumonia.—The Council on Pharmacy and Chemistry reports that "Antipneumococcic Oil" (a solution of camphoir oil, sold by Eimer and Amend, New York) is ineligible for New and Nonofficial Remedies because (1) the recommendations for its use in pneumonia are not warranted by the evidence; (2) the name is not descriptive of the composition, but therapeutically suggestive, and (3) the sale of a solution of camphor in oil under a name nondescriptive of its composition is unscientific and a hindrance to therapeutic

progress (Jour. A. M. A., Jan. 3, 1920, p. 46).

Mere Misbrandings.—George L. King, Kingfisher, Okla., was prosecuted by the federal authorities because the therapeutic claims for "King's Kidney Remedy" were false and fraudulent. The United States Drug Manufacturing Company, Philadelphia, was prosecuted by the federal authorities because a number of its tablets were found not to contain the amount of drug claimed. The John H. Casey Medical Company, Hillyard, Wash., was prosecuted by the federal authorities because "Casey's Rheumatic Cure—The Great Montana Remedy" was sold under false claims of composition and of therapeutic properties. Joseph McManus, doing business under the name of Philadelphia Capsule Co., Philadelphia, was prosecuted by the federal authorities because some of the products sold were misbranded, or adulterated, or both (Jour. A. M. A., Jan. 10, 1920, p. 121).

Singleton's Eye Ointment.—This is a British nostrum. The chemists of the British Medical Association in 1909 reported it to be principally a mixture of lard and Japan wax and purified cocoanut oil, with 4 per cent. of beeswax and 7.4 per cent. of red mercuric oxid (Jour. A. M. A., Jan. 17, 1920, p. 193).

Kline's Nerve Restorative.—In 1915, the A. M. A. Chemical Laboratory reported, of this alleged epilepsy remedy, that essentially each 100 Cc. of the solution contained approximately 8.7 gm. ammonium bromid, 9.2 fim. potassium bromid and 8.0 gm. sodium bromid. Calculated from the bromid determination, each meal-time dose contained the equivalent of 17.2 grains of potassium bromid (Jour. A. M .A., Jan. 17, 1920, p. 193).

Apothesine.—This is an efficient local anesthetic manufactured by Parke, Davis and Co. It belongs to the procain rather than to the cocain type, that is, while efficient for injection anesthesia, it is relatively inefficient when applied to mucous membranes. The Council of Pharmacy and Chemistry reports that exception was taken to certain claims of efficiency, safety, etc., and that it sent these objections to Parke, Davis and Co. The firm apparently was unwilling or unable to submit evidence for the claims that had been questioned; nor did it offer to modify the claims themselves. Apothesine is, therefore, ineligible for inclusion in New and Nonofficial Remedies. It will, however, be listed in the "Described but Not Accepted" Department of New and Nonofficial Remedies (Jour. A. M. A., Jan. 24, 1920, p. 265).

Dial "Ciba."—This is a hypnotic sold by A. Klipstein and Co., Inc. Chemically, it is closely related to barbital (veronal). The Council on Pharmacy and Chemistry reports that it has not been accepted for New and Nonofficial Remedies because unwarranted claims are made for the product. As it might be made eligible for N. N. R. if the misleading therapeutic claims were eliminated, the Council directed that Dial "Ciba" be included with articles "Described but Not Accepted" so that physicians might be informed with regard to its character and properties (Jour. A. M .A., Jan. 24, 1920, p. 266).

Vleminckx' Solution.—This solution, used by Dr. W. A. Pusey for ferrucæ, is a solution of oxysulphuret of calcium. It is in the National Formulary as Liquor Calcis Sulphuratæ and is made by boiling together water, lime and sulphur (Jour. A. M. A., Jan. 24, 1920, p. 268).

Skeen's Stricture Cure.—For some years, a concern in Cincinnati which has gone under the name "D. A. Skeen" and "The D. A. Skeen Co." has advertised a mail order treatment that was "guaranteed" to cure stricture or enlarged prostate. Now the postal authorities have denied the use of the U. S. mails to this concern and its manager, George B. Poole. The product was found to be essentially a solution of ferric chlorid in alcohol and water (Jour. A. M. A., Jan. 31, 1920, p. 340).

Pneumo-Strep-Serum.—In an Advertisement of Pneumo-Strep-Serum, the Mulford Company, by going beyond our present knowledge, carries misleading inferences. If the "Pneumo-Strep-Serum" had the virtues with which the advertisement inferentially endows it, this product would have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies. It has not been so accepted, although many other biologic products of the same manufacturer have been (Jour. A. M. A., Jan. 31, 1920, p. 342).

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Listerine in its long use by physicians has never once been criticized for any untoward action upon the mucous membrane, and this is a remarkable history for a product that has been a favorite with two generations.

—The Journal-Lancet, Feb. 15, 1920.

According to a letter sent out by Rupert Blue, Surgeon-General of the U. S. Public Health Bureau, the general death rate in the United States has been reduced from 17.6 to 14.2 in the last twenty years. In other words, had the conditions of twenty years ago prevailed during the year just passed some 350,000 more persons would have died than actually did die. This represents a truly enormous saving of life.

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Original Communications

THE FUNCTIONS OF CLINICAL NEUROLOGY.

By Dr. Tom A. Williams.

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Former Neurological Conditions.

The name of neurologist was formerly assumed by the untrained, who deceived their colleagues by their unintelligibility covering their ignorance with terms lacking precision or correspondence with clinical observation. Neurological science was then in its cradle, and there was no critical medical public to expose the pretender. The limits of the old neurology were the diagnoses of organic nervous diseases, which were divided into rigid clinical categories, few of which were based on pathogenesis. To this some neurologists added the treatment of functional nervous conditions. This consisted of an empirical imposition of a therapeutic blunderbuss, comprising isolation in bed, massage, electricity and over-feeding. A few gifted men added to this a shrewd knowledge of neurotic human nature, by virtue of which they converted patients without physical disease into the belief that they were well, and through this crude method achieved a certain proportion of cures.

The "rest-cure" blunderbuss also cured many persons who needed this energy-sparing and upbuilding method, more especially patients with incipient tuberculosis and those with assimilative powers unequal to the strain of an overburdened life. Cases of simple asthenia and also persons whose social adaptations had failed were naturally benefited for a time. But the method was very expensive, many of the procedures in any single case were superfluous, and the process frequently failed because it was not properly applicable to the case in question.

Classification of Nervous Diseases.

The material consists of nervous disorders classifiable into three groups, each possessing a fundamentally different character. These are:

1. **Anatomical changes in the nervous system itself ,or in its supportive connective tissue.**

These are known as organic nervous diseases. The method of differentiating these disorders is generally contingent upon the topography of the nervous system. Localization and focal diagnosis are the chief diagnostic assets in such cases. The means utilized are the exploration of the reflectivity, motility, including the cerebellar functions; sensibility, including the special senses, and, to some degree, the autonomic and psychic functions, more especially when the disorders of these are partial and conform to some neurological region.

Laboratory investigation becomes of help in proportion as neurological knowledge is inadequate; but in some cases the neurological signs may be lacking and the general biological reaction may settle the etiological diagnosis, which is often of greater importance than the topographical diagnosis. Examples of these principles abound, not only in neurological literature, but in general medicine. Regarding diagnosis, we should add that, unless the reports are made by properly trained neurologists, the statements should be received with reserve, even when in the best medical publications. One of the most widely read text-books of general medicine is a flagrant example.

Of the treatment of organic diseases of the nervous system, the former pessimism is no longer justifiable. The deep penetrating Roentgen ray, better surgical technique, combined with great precision of focal diagnosis, has made tumors of the spinal cord quite remediable. Even in tumors of the brain, a much more favorable outlook is now permissible.

It is of supreme importance in cases of cerebral tumor that this examination should be made before the tension has so increased as to prevent co-operation by the patient, and before the focalizing signs have become masked by remote signs which will dominate and obscure the true picture.

A striking illustration is the more widespread realization of the needs for intensive treatment of cerebro-spinal lues, and the inclusion of tabes dorsalis in this rubic, for the insistence upon which in 1908 considerable hostility was aroused toward the author.

The Chemical Perversions.

II. Functional nervous disturbances of the nervous system may be caused by physical disorders elsewhere. One of these is caused by alterations of the medium in which the neurones have to perform their work. This is influenced by chemical substances, whether infections, intoxications or perverted secretions. The results may be either psychoses or neurosis. Typhoid and other fevers are the clearest examples.

The "Psychoses"* Proper.

III. The second class of the functional diseases is purely psychogenetic, i. e., they are generated (from within or without) by impressions upon the sensatory apparatus. These arouse and associate themselves with the stored-up impressions of other stimuli to form a psychological unit known as "idea," whether accompanied by emotion or not.

I cannot too often repeat that the diagnosis of hysteria should never be made by exclusion, but always, if possible, by its genesis, and if that is not possible, by the form of the syndrome exhibited,—by which is meant the inconsistency of the symptoms shown with those of the topographic arrangement or physiological groupings, characteristic of organic or functional disease arising in the body, as against their consistency with functional groupings comprised under the psychological rubric, "association of ideals."

The reverse error of diagnosing something else when the symptoms are exclusively hysterical is also quite frequent. The error is very common in regard to paralysis.

*The word used in its true sense.

Knowledge of psychopathology is, of course, the remedy. This knowledge becomes dangerous when it leads to ignoring physical conditions in a case which is also hysterical. It must be remembered that the most frequent of all the suggestions of bodily disease is bodily disease itself. The removal of a hysterical fixed idea concerning the health is not enough in a patient when some physical condition also exists.

The principle the patient is made to grasp is that fear and shame of those fears prevented him or her from facing and examining them, which is the essential preliminary to the understanding which would make them disappear. (See phobias and obsession, international Clinics, Vol. IV.)

Methods of Treatment—Erroneous and Correct.

Suggestive therapeutics, so much vaunted by some, I consider grave neurological error. Psychotherapy should be a constructive growth, built on analysis, and not a mere imposing of behavior on the patient through side-tracking his attention by electricity, hypnosis, joint manipulation or religion.

Elecericity is frequently applied to patients with what is loosely called functional nervous disease. The procedure of the physician who does this has no better standing than that of the unqualified practitioner, whose existence we deplore. He forgets ,if he ever knew, that the inadequacy of a patient's response to environment by means of his nervous system may originate from a bodily disorder that treatment of which has nothing at all to do with the nervous system. The apparent relief may even be due to suggestion.

Other typical examples of erroneous belief in empirical remedies and desire to neutralize symptoms are offorded by the notion that an excitable person should have bromides to meet the symptoms of excitability by a depressant; or that one feeling below par should be given stimulants—usually strychnine—although a moment's reflection should show the absurdity of treatment by purely spinal excitant an inadequacy of the higher neurones in a patient with lower neurone reflexes already exaggerated.

Finally, a serious neurological error is sending a patient to a sanatorium for nervous diseases without knowing

the class of treatment to be given. A proper diagnosis should first be made. This will often obviate the procedure of sending the patient to an institution, and the stigma which may accrue.

The following example, one of many illustrates:

1. The avoidance of judging by superficial symptoms.
2. The looking beyond mere physical expressions of disorder.
3. The appreciation of the psychogenetic nature of vascular disturbances.
4. The method of persuasion.
4. The possibilities of ambulant treatment as against institutional.
6. The efficacy of methods which have nothing of the artificial, obscure and do not depend upon dogmatic pseudoscientific shibboleths of more than doubtful veracity.

An Example of Agarophobia Combined with Claustrophobia.*

A woman of 33, whose sister had been sent to me by Dr. Reichelderfer on account of an intense migraine, consulted me because of her inability, unless accompanied, to cross a wide street or to remain in a church or theater, without an intense emotional disturbance, showing itself in palpitation, polypnoea, facial pallor, chilliness, moisture and cyanosis of the extremities ,rigidy and pain in the neck and back, nausea, the sensation of great weakness and dizziness, which had lasted for eight years.

Examination showed no physical disease, the only signs present being myopia, rather prominent eyes, slight fine tremor, excessive sweating and an enlarged thyroid, instability of the pulse rate and of the blood-pressure. The latter at the first examination was 160 systolic, while the next day it had reached only 140 and quickly fell to 127 systolic and 85 diastolic, which I regarded as her normal pressure. The pulse rate which had at first been 112 per minute, later was found to be 97, and was reported to me to be habitually less than 80.

The patient declared that while outside she was never able to relax, and had lately been becoming apprehensive even in the house, and had also felt very weak in the evenings, when her heart would often flutter apprehensively.

It was not because she dreads an accident that she cannot cross the street alone, but because she fears losing consciousness on account of the heavy sensation of oppression which she experiences.

She was asked to recall the first occasion upon which she had experienced those sensations. After some effort she was able to recall that in church eight years before, on a hot summer day, she had begun to feel an overwhelming sense of illness during the sermon. The compulsion to leave the church was intense, but she was ashamed to do so as she sat near the front well back in the pew and did not wish to excite attention by creating a disturbance. She had not been ill at the time, indeed, was an exceptionally strong girl, had had no worries, and the subject of the sermon caused no painful impression upon her. No attack recurred for some weeks. At the end of that time another attack did occur, and gradually she began to experience these incommoding sysmptoms either at church or in the theater, and she was only able to avoid them by sitting near the door so that she could get out immediately when she began to feel oppressed. About four years later, she began to fear crossing a wide space, and felt the need of someone to support her.

She had always had a fear of high places, but had thought nothing of it, as everyone else in the family felt the same way. She had never feared the dark and had had no social timidities, and she had enjoyed her school and college life. She had always been anxious about the health of her mother, who was an invalid, but did not reproach herself for this, as she had always attended to her. As a girl, however, she had been timid about appearing conspicuous, as in recitations in class.

A series of association tests were made, but revealed no morbid affects except when direct leading words were used such as "pavement."

Further interrogation brought out the fact that it had been a very hot day when the first attack had occurred, in a small, ill-ventilated country church, and that she had really experienced a physical oppression which was antece-

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Not a new article, but a sub-heading of the same. Extracted from author's recent article "International Clinics or Phobia and Obsession."

dent to the moral distress at the possibilities which she imagined.

It was concluded, therefore, that the hyperthyroidism evidenced by the size of the gland, the hyperhydrosis, the prominence of the eye-balls, slight tremor, tachycardia and mobility of the pulse and blood-pressure was not the most important feature of the case, and might indeed, be a condition secondary to the chronic emotional strain to which she was subjected, and that it might disappear if this were alleviated. Further, it was believed that hyperthyroidism could not be responsible for the emotions of the patient, for the psychic reaction was so specifically contingent upon definite circumstances, whereas the hyperemotivity of hyperthyroidism is occasioned by numerous circumstances, and does not tend to fix itself upon only a particular event.

It was therefore concluded that both the agoraphobia and the claustrophobia which this patient experienced were hysterical notions arising from the powerful suggestion of the recollection of a particular experience which was efficacious now only by intermediary of the timorous imagination of the patient.

Accordingly, re-education was forthwith begun. The patient was at first unwilling to undertake it after my explanation, giving the excuse that she had never been willing to introspect, but she accepted the necessity of doing so when it was explained that a person was under an obligation to know himself and that it is as futile to oppose this need as it would be to object to understanding technique if one were learning to play the piano.

It was explained to her that her dread of what might happen in a close or open place was merely due to her own ignorance of the mechanism of the consequences of a wrong way of looking at things and the emotions brought about thereby and that only when she obtained a true insight into her own psychological machinery would she be able to control it. The power of induced ideas and the feelings produced thereby were explained to her and illustrated by the story of a play called "The Harvest Moon," in which a hard-headed lawyer was made sick by the means of a few words skilfully implanted.

After a while she accepted my explanation, and added: "It must have been fear, because on leaving the church one of the maids said, 'What frightened you?'"

She stated that she was relieved after the relation of her feelings to me because her sister had maintained that she had been wrong in showing too much sympathy for the patient's affliction. She added, too, that she was naturally "such a self-contained person."

In the course of a few days she was asked to write her account of the way in which she viewed her own psychology, and this I append:

"After several years of intense suffering from supposedly physical causes, it is, to say the least, surprising to be told that I am a victim of fear, and that the fear recognized and removed, the physical symptoms will disappear. Of course, I know abstractly that fear is psychological and that it does produce physical reactions, just as other emotions do. but I find it hard to convince myself that the fear of fainting on the street or in an audience, is in my case, the source of all the unpleasant and peculiar sensations I have in such a marked degree. It still seems to me that there must be something other than this vague, intangible "unknown quantity" that makes me tremble at the mere thought of walking a block or two. And yet that line of argument brings me back to the psychological phase, for I have spontaneously written that I tremble at the thought. I have almost resented the idea of anything phychic, for it has seemed to me like an admission of weakness or lack of will-power—but I believe I am gradually coming to see that mind has something to do with matter, even in my own case, and that distance as it seems now, the physical symptoms so uppermost and persistent may yield when I fully grasp the fact that there is nothing to fear.

"A few days ago I heard what seems to me to be a very striking illustration association of ideas. A man who had been in the trenches was riding on a trolley car here in Washington, when the current was short-circuited and the lights of the car suddenly went out, with the noise and buzzing sound that accompanies it. Immediately the soldier fell flat on the floor of the car, but before anyone could reach him, he had risen and seemed perfectly well. He then explained that ever since hearing the

explosion of bombs and bursting of shrapnel in the trenches, any unusual sound or sudden noise produced the same shock, and wherever he happened to be, he instinctively threw himself flat on his face, for protection. This is, of course, an extreme case, but it is true that to a greater or less degree impressions are being constantly induced upon the human mind and no one can escape the influence of them. One of the most familiar instances is that of actual illness produced in a perfectly well person by the power of suggestion which is so cleverly brought out in the case of the lawyer in 'The Harvest Moon.' I have seen a happy, smiling baby draw down the corners of his mouth and finally cry real tears because someone had used a sympathetic, pitying tone of voice in speaking to him.

"The casual greeting, 'How are you?' sometimes sets up ,in a sensative person, a train of thought that brings with it a whole list of physical ills not thought of before. Much has been said lately about the moral effect of the presence of American troops in the European trenches aside from the real reinforcement of man-power. Bishop Brent insists that the mere appearance of the American flag on the battlefields of France, no matter how small a force of men accompanied it, would be sufficient to hearten the whole French army and send it on to greater victory. Instances of the power of an idea might be multiplied, but it is evident that the human mind is easily swayed by impressions. It seems to me important then to see just what sort of big ideas are dominating our lives and giving color to our work.

"About eight years ago, I had an experience which marks the beginning of a definite period of my life during which I have suffered in the most peculiar and distressing way. As I try to recall it now, I have a very clear mental picture of the church where I was at service, and also a very vivid recollection of the sudden, overwhelming sense of illness and oppression and a great desire to get out into some less restricted place. However, with a great effort I did stay until the end of the service. I thought little more of it and attributed my discomfort to some slight physical disorder. But ever since that morning I can truthfully say that I have never been in any public gathering when I felt at ease and thoroughly relaxed. Always I am restless and uncomfortable and figit about, waiting anxiously for the moment when I can be free from the strain. Even though intensely interested in sermon, lecture or play, and regretting to miss a word of it, I am often so really ill that I have to leave quickly for fear of fainting or making a scene of some sort. I remember that several years ago a certain magazine published views of the interiors of the great opera houses of the world. Absurd as it may seem, those pictures were frightful to me. I could not look at them without having the same sensations of space and height that I knew so positively I should feel were I actually sitting there in the flesh. This is to me pretty convincing proof that the idea of fear is the real cause of all the symptoms which have become more and more exaggerated until at times I am really ill.

"The same dread or fear of space it must be that made me feel uncomfortable and unnatural when on the street, for I seldom walk half a block without swaying and dizziness and the certain conviction that at the next step I must fall.

"This fear, in my case, was evidently set up that morning in the church and ever since I have supposed I needed medical treatment for some serious trouble, but now with the assurance that there is absolutely nothing wrong in my physical make-up, my problem seems to be to rid my mind of the fear that has unconsciously, but as I see it now, completely controlled my thought and made the days when necessity urged me out of doors or my desire led me to some public function, occasions to be dreaded beforehand and looked back upon with horror.

"It is difficult for me to understand that these signs of illness are not illness at all, but caused by an induced impression—but I have high hopes that this view of the case is the final and correct one."

In the meantime she had complained of pain in the sacrum, and wished to make sure that there was nothing physical to cause it. She insisted that I examine her. I found no tenderness even on rotation of the hip, and only a slight scoliosis. There was no dilation of the

colon, and the appendix vermiformus had been removed. The surmise that the pain was due to the postural dragging induced by the restricted manner in which she walked on account of her dread was confirmed by the fact that it disappeared when she adopted a freer manner of locomotion.

The next step in the treatment was to accompany her to a large square in the neighborhood, across which I made her go alone. Although her hands became cold and her face pale, the pulse frequency increased, and her throat became dry, she declared that she had performed the feat better than she had done so. The following day she had to do so on several occasions alone.

When she came to see me again, she declared: "I can't get over it. I feel so different, but I dread the return of the trouble. The day after you led me across the square was the best I have had for years. I went to church and enjoyed the service and experienced no palpitation. For a moment a sudden fear appeared, but I stopped and reasoned concerning it and concluded that nothing could happen."

I concluded with the final adjuration that all now depended upon herself and she realized that she was well and has remained so in these years without further assistance.

Commentary.

Thus violent, persistent, long-continued agoraphobia and claustrophobia were traced to a single incident upon which they were dependent. They were removed in less than a week by efforts directed towards giving the patient an understanding of their mechanism, indeed, compelling her to grasp it and then compelling her to take an exercise which afforded a practical demonstration.

TONSILS, ADENOIDS, COMPLICATIONS AND OPERATIONS.

Dr. O. J. Houser, Charlotte, N. C.

The subject of tonsil and adenoid operations of various kinds, are well discussed in most all the medical journals you pick up nowadays. It covers a broad field, and too much cannot be said on the subject, lest we forget.

Read before the Tri-State Society, Charlotte, N. C.

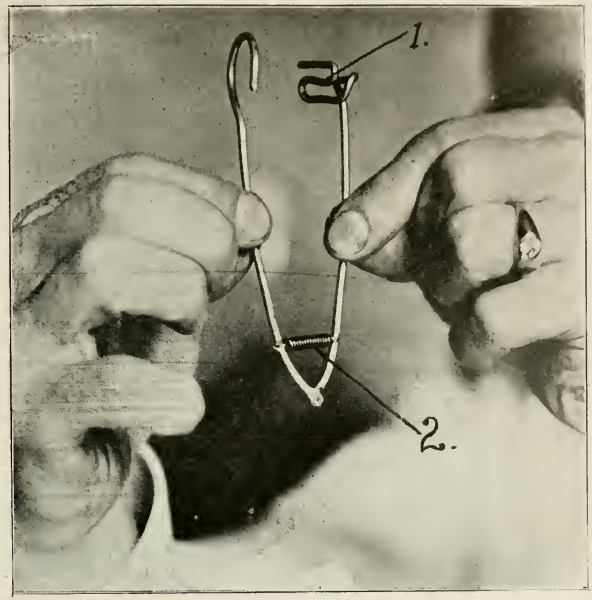
In cases where the operation is needed, the results are well marked: as to clearing up the tone of voice, lessening vocal fatigue, and increasing the range of the singing voice, gastrointestinal disturbances, recurrent articular rheumatism, enlargement of the deep cervical glands, and many of the long standing ear troubles, such as practical deafness, discharge of the ears (especially in children).

Catarrhal conditions, chronic conjunctivitis, general toxæmia, all show marked improvement, and asthmatic symptoms are often helped. A chronic anthrum, sinuses, and teeth should also be taken into consideration.

Brief Symptoms of Acute Tonsilitis: The general symptoms are those common to sepsis: Remitting temperature, ranging from normal to 105° depending on the kind of infection and the resistance of the patient. Chills and general malaise, (but the initial chill is not always present); the patient has pain in tonsilary region, radiating to the ear. Marked symptoms of adenoids in the child; the mouth remains open more or less all the time, the countenance dull, eyes look heavy and stupid, the upper lip thick and prominent, the palatal arch usually high, narrow and V-shaped, with incisor teeth protruding. The nasal breathing at night is partially or wholly cut off, owing to the congestion of the adonoid tissue when the child assumes the recumbent position, —then the little one is forced to breath with its mouth open. Other symptoms are frequent attacks of ear ache, impaired hearing, purulent discharge from the nose, and occasional nose bleeding, oral breathing, due to adenoids, is the cause of a great percent of what is known as the pigeon breast.

The lymphatics of the tonsils and adenoids are the first adjoining tissues to become involved. The most usual glands to become enlarged from the tonsils lie behind the post, bellie of the digastric muscle, in an angle between the internal juglar and facial veins. Other numerous lymphatics are those which pass with those from the basal region of the tongue, joining the superior and deep cervical nodes. The superficial glands can easily be palpated when involved.

The lymphatics from the adenoid region drain into the retropharyngeal

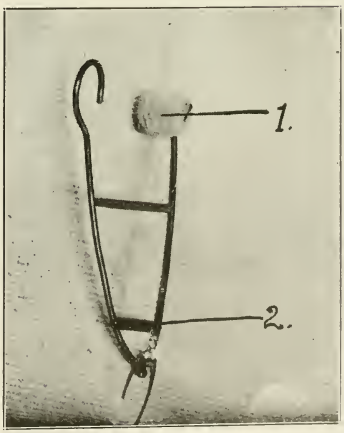


TONSIL HAEMOSTAT
1. Convoluted Surface in Which Gause Pledgett is Woven. 2. Spring.

glands; symptoms of infection here may either give pharyngeal, tonsillar pain, or earache; it is often difficult to differentiate the enlargements caused by tonsil or adenoid infection, because usually both regions are involved at the same time. Some of the contraindications for operation are: atrophy, rhinitis, haemophiliace, and advanced cases of tuberculosis.

The subject of complications and sequelae following tonsil and adenoid operations are very extensive: as, observed by all throat operators, and leads to conclusion, that many of us have been doing operations without a proper study of final results; and have sacrificed a great many tonsils that might better have been left alone; which was not to our own credit, or to the patient's best interest.

If we leave in place diseased bases of tonsils, with crypts to hold cheesy deposits, to make a breeding place for bacteria, or if we cut the posterior or anterior pillar, causing scar tissue to form, with its inevitable contraction on heal-



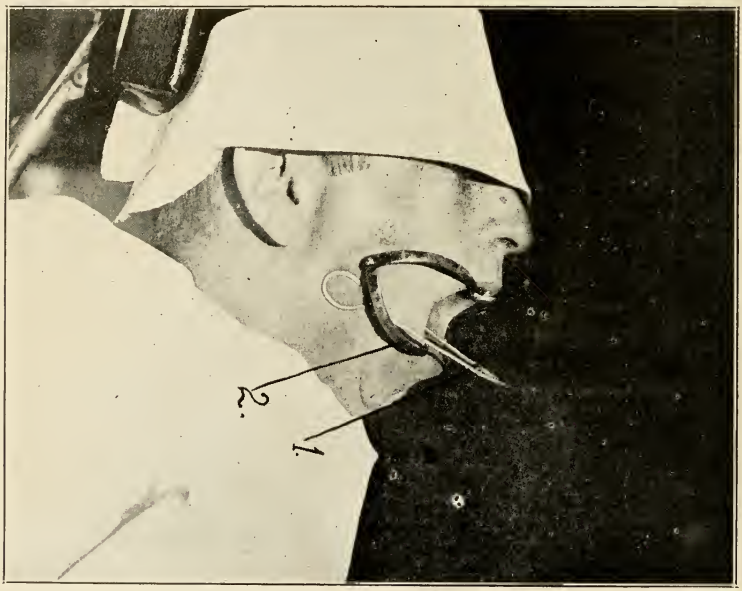
1. Gause Pledget Woven in Convolutions.
2. Spring.

ing, or allow the edges of the pillar to unite in a false position, forming pockets for the retention of food and bacteria; then we have done no good, but have left the patient in worse condition than he was at first, physically and financially.

Of the complications following tonsilectomies; perhaps more common is post operative hemorrhage. These hemorrhages occur mostly in cases where the tonsil fossae are not clean, other cases are partially due to the patient not keeping quiet. The hemorrhage at time of operation is of equal importance, from the standpoint of strangling, blood gaining admission to the trachae and lungs, or stomach, which causes numerous complications. In cases of hemorrhage, the pillars should not be sewed together, an operator competent to remove tonsils, should be equally competent to ligate a bleeding vessel. The writer has devised a little haemostat which is light in construction, and can be used in all tonsil operations, to a great advantage; as to time saving as well as to stop the oozing of blood while the second tonsil is being removed. This instrument I will be glad to demonstrate by lantern slides at the conslusion of this paper.

The operation should be done with the utmost care, to avoid pulling on the tissues as much as possible, this will lessen the various amounts of swelling and pain, which complicates so many operations. Many operators seek to get a good outline of the anterior pillars, and very often pay very little or no attention to the posterior ones. Dull dissection has been the adopted method, but scissor dissection if done properly gives the best results of all. The entire capsule must all come away with the tonsil, lest an infection stub will show up later, which usually gives as much trouble as before.

So far, the best method is with a cold wire, tightening it very gradually, allowing the wire to work its way between the capsule and fossae wall, the capsule will all come away with the tonsil, thus giving each vessel time to contract and close. It is very important that a new wire be used for each tonsil, as in re-



1. Tonsil Haemostat in Position. 2. Mouth Gag.

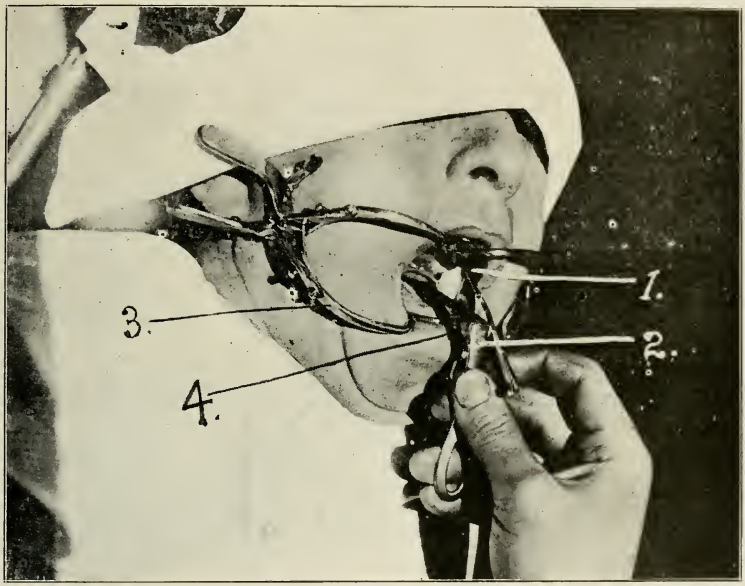
shaping the wire after it has served to enucliate one tonsil, very often has kinks, which will result in a ragged enuclination,—thus parts of the tonsil and capsule are left to grow.

There is not much to be said about the adenoid operation; but still, it requires a great deal of skill to remove the little particles which so often spring up as large growths later. The LaForce adenotome is the greatest instrument available; but should be used with care, lest damage is done to the vomer by pushing the instrument too far.

The Stubb's adenoid currtte will serve to remove the particles left by the LaForce adenotome; after which, if the space is smoothed down with a piece of gauze wrapped around the index finger, the return growth will be less likely.

After operation, the patient sould be kept very quiet with head and shoulders elevated, and a little ice to neck or in mouth until all tendency to hemorrhage has ceased.

The complication of infection following the operation is of major importance, on account of so many cases of otitis media following. The main precautions are, to select the time of operation when the tonsil is in its most healthy state, remove the entire capsule, keep the patient out of dust, do not use gargles too early, give nature a chance to cover the raw surfaces with its protecting white coat. Rest, and proper dieting such as liquids and later soft food, will do away with so many post operative sore throats, for which the doctor is mostly blamed.



1. Pledgett in Fossa. 2. Haemostat. 3. Mouth Gag. 4. Tongue Depressor.

Some of the main points to be considered before operating: ascertain if the patient is a bleeder.

See that there is no acute inflammation in throat or nose.

Find out date of last acute infection, nature, etc.

See that patient has a good purge before operation, for local as well as general anesthesia.

Know that the tonsil fossae is dry before the patient leaves the operating room.

PROSTATECTOMY UNDER LOCAL ANAESTHETIC, WITH REPORT OF CASE.

By W. C. Gewin, M. D., Birminghtm, Ala.

When we attempt surgery of the prostate gland, the general condition of the patient in a large percentage of the cases is always bad, due to the fact that the patient is aged or at least prematurely aged from intemperance in his early life. They almost invariably have arteriosclerosis, high blood pressure, albumin, casts, and pus in the urine, and sometimes a heart lesion. The infected condition of the urinary tract is due to prolonged distintion of the bladder with residual, stagnated urine, with superimposed infection of the bladder from frequent use of an unsterile catheter and other sources. These infections rapidly ascend to the pelvis of the kidneys, which are already diseased from high blood pressure, and consequently the whole sewerage system of the body is impaired from the clog caused by the enlarged prostate gland.

Due to the fact that we have this horrible general condition of the patient to deal with many of them are bad risks under general anesthetics, and should be done under local anestesia. If the bladder can be reached with small rubber catheters, for several irrigations daily with warm boric acid solution to clear up the infection the operation may be done at one sitting, otherwise it is better to use two-stage operation. The technique does not differ, except that in the two-stage the bladder is opened in the suprapublic region and irrigated two or three times daily through this opening for ten days and then the gland is removed.

Before the war the solution of choice was a half per cent novocain with 15 minims of 1-1000 adrenalin chloride to the ounce. Since our supply of novocain was exhausted we had to resort to hypothesin, anesthesin, and the different preparations of cocain, the best possibly being hypothesin in a one or two per cent solution with adrenalin added in the above mentioned proportions.

The skin is first injected with a fine needle in the median line for about four inches immediately above the os pubis. The next injection should be with a long needle from three points on the skin under the deep fascia which at first offers resistance to the needle, but when it passes through the injection is begun. The incision is now made down through the skin deep facia and muscles exposing the plexus of veins anteiror of the bladder. Now a little more of the solution should be injected into the loose tissue about the plexus of veins and the anterior bladder wall. The bladder is then opened and a small self-retaining bladder retractor is put in place, exposing the gland to view. In some cases where the gland is protruding high into the bladder the capsule may be slit and the gland shelled out without any anesthesia, and with very little pain, but I think to prevent the slightest pain, the shock, and the hemorrhage, it is best to inject the gland similar to injecting a tonsil for removal. With a long needle about one ounce of the solution is injected between the true and false capsule and about the internal meatus of the urethra. After waiting for five minutes the gland may be removed with no pain, very little shock, and the hemorrhage is largely checked by the action of the adrealin. Two soft rubber tubes are left in the opening in order to give a return flow to the irrigations in the post operative treatment.

The patient may be kept on a back rest and in a rolling chair at intervals, even on the second day after operation. Soft diet is given for two or three days and then regular, because no prolonged spell of nausea following a general anesthetic. The bladder should be irrigated twice daily with a warm saturated solution of boric acid, and the dressings changed as often as they become soiled.

Report of a Case.—Mr. F., age 73, referred by Drs. Hollis and Newton. When he was admitted to the hospital he was complaining of almost complete obstruction due to the flow of urine with dribbling. He had always been a healthy man with no bad habits, and denied any venereal trouble at any time of his life. For the past 13 years he had been having trouble in passing his urine and carried a catheter in his pocket so he could use it when necessary. (Physical Examination.) A very well developed, but poorly nourished and anemic, aged man, arteries very much hardened.

Read before the Tuscaloosa County Medical Association, Tuscaloosa, Ala., March 8th, 1920.

Blood pressure 190 systolic, 130 diastolic. Urine showed pus cells, casts, and a high percentage of albumin. **Lungs:** a few dry rales; anteriorly over both lungs. **Heart:** enlarged, irregular, loud, systematic murmur at the apex, and transmitted to the axilla and back. Abdomen: negative, except for an enlarged bladder very sensative to pressure. Rectal examination showed a very much enlarged prostate gland. We were able to insert a small, soft rubber catheter into the bladder for irrigations twice daily with boric acid solution. After one week he was operated on after the above method, using two per cent hypothesin with adrenalin chloride 15 minims to the ounce. He experienced practically no pain and no shock from the operation. He was up in a rolling chair on the second and third days following operation, and improved rapidly. He never had more than one degree rise in temperature. He continued to be up daily in the rolling chair, and began to pass his urine naturally. The wound healed nicely. He was up and around the hospital at leisure. About ten days after the operation he was ready to go home when he developed a bilateral, hypostatic pneumonia which caused his death on the morning of the twelfth day following the operation.

ANALYSIS OF FORTY-EIGHT CASES OF UTERINE BLEELING DURING PREGNANCY.

Oren C. Moore, M. D., Charlotte, N. C.

The significance of uterine bleeding during pregnancy has long been in doubt, and my report of 48 recent cases is an effort to throw what light possible I may on this rather hazy situation. The conclusion I reach, and shall attempt to show, is that the overwhelming majority of bleeding during this time is of greatest significance to the life of the mother and the baby. I have classified the series as follows:

	No. Cases
Threatened Abortion	16
Placenta Praevia	8
Ectopic Gestation	7
Premature Separation of Placenta	4
Traumatism	4
Persistent Menstrual Event	3
Carcinoma Cervix	2
Specific Ulcer Cervix	1
Polyp of Cervix	1
Hemorrhoids	1
Pulpy Sub-mucuous Filroid	1
Total	48

Those threatening health of mother, placenta praevia, ectopic, carcinoma and specific ulcer, total 18, or 37.5 per cent of the total.

Those threatening life of baby, premature separation, threatened abortion, traumatism, sub-mucous fibroid, total of 25, or 52.1 per cent of the total, while only five, or 10.4 per cent, can be regarded as insignificant. Most are persistent menstruation, hemorrhoids and cervical polyp.

I think it can be clearly seen, before going further, that when 37.5 per cent of any given series seriously complicates the life of the mother, and 52.1 per cent complicates the life of the foetus, while a bare 10.4 per cent is insignificant, that we are dealing with a symptom which is well worth our deepest consideration. When once it has appeared in any given case we should leave no steps untaken in determining the causative factor, eliminating it if possible, if not, then taking such steps as will best safeguard the interest of the mother and the unborn child.

Taking up classifications separately:
Threatened Abortion—16 cases:

In this number are not included the dozens of cases that you and I have seen which rapidly pass from the state of threatened to actual consummation, but does include such cases as without previous history of injury, disease or exciting cause, bring more or less definite bleeding in the course of an otherwise normal pregnancy. In this series of 16 all the cases were carried through to successful term. Methods of treatment employed were in most part the usual, that is, complete rest in bed, pelvic sedative, sometimes narcotics.
Placenta Praevia—8 cases:

In this group the hemorrhage symptom was fairly characteristic, and in most of the cases quickly admitted of correct diagnosis in time to successfully culminate the pregnancy. In this group we lost one baby at six months and one mother at term. The latter death was due, I think, to anaesthesia. The method of delivering in six cases was rapid dilation and version, and one case extra large dose of one and one-half c. c. of

pituritin was given, which firmly forced the head and precenting placenta into the cervix. One case we were able to apply forceps. The latter two were distinct marginal cases.

Ectopic—7 cases:

In three cases of this group the symptom of hemorrhage was so closely allied with other more or less diagnostic signs as to make the detection of a tubal pregnancy certain, which was operated before rupture. The other four were not suspected, except in a purely theoretical way before operation was done.

Premature Separation of the Placenta —4 cases:

In this group the discharges were of a dirty brown color, and persisted from a few days to two weeks before delivery was spontaneously accomplished. In none of these cases were we certain of the diagnosis, but in two at least we credit ourselves with a tentative stab in the right direction.

Traumatism—4 cases:

In this group we include what might properly come under the head of threatened abortion, but which we have preferred to separate because there was evidence or history of direct violence, which accounted for the bleeding. One case the unskilled use of a douche nozzle and in another a sudden fall on ice-covered steps, with no resultant uterine contractures, but a rather profuse and persistent bleeding. The other two cases were the result of frights and jars received in an automobile and street railway car respectively. These all being treated as threatened abortion cases, all but one making successful recovery.

Persistent Minstrual Event—3 cases:

In this group I am no surer of the causative factor than you are in similar cases, without exception they went through without event to term. The only treatment was having them lie down during the appearance of the menses.

Carcinoma of Cervix—2 cases:

Both these cases were operated immediately after discovery of the malignancy. One was nearly term, and Caesarian operation was done and dead baby was delivered. The deeper structures were found involved and were regarded as inoperable so far as a radical cure was concerned. Mother died about four months later. The other, a Pan-hysterectomy, was done at four months, results were poor, recurrence proving fatal less than a year later. As to the time of origin of the malignancy I have no means of reaching an opinion. Both these cases were clearly marked when seen by us and we operated within the next two or three days. Whether or not the cancer developed after conception took place and was fostered in its growth by the unusual supply of blood at this time, or whether it was pre-existent to conception and reached its advanced stage of destruction, are matters for pure guess.

Specific Ulcers of the Cervix—1 case:

This case was discovered late in pregnancy. The ulcer was horribly fetid and purulent. Under antisyphilitic treatment the ulcer improved, but not rapidly enough to make it feasable to deliver via naturalis, and a Caesarian section was done with good results. Patient made a good recovery from both the surgery and the lues, and seemed to be perfectly well when last seen.

Polyp of Cervix—1 case:

This was a small, bleeding, protruding polyp, which was easily removed, and a complete cure of the bleeding effected.

Severe Hemorrhoids—1 case:

It is, of course, evident that bleeding from piles does not properly belong in this series, but since this case was somewhat amusing, as well as somewhat confusing, I feel justified in detailing its history. This patient, a four para, while using the slop jar, felt the loss of, and discovered in the jar, a considerable quantity of bright red blood. She returned to her bed with some difficulty, then summoned the family physician, who, finding all evidence in the bloody jar, blood-stained night dress and bed clothing, immediately administered a dose of morphia, confined the patient to her bed and after bleeding had subsided called us in consultation. On vaginal examination no reason could be found for the profuse hemorrhage, but on rectal examination a severe case of hemorrhoids was discovered and bleeding quickly traced to this point, treatment applied here effected a complete cure of the hemorrhage symptom.

Sub-mucuous Filroid—1 case:

In this instance persistent irregular bleeding made us decide to empty the

uterus, if indeed, patient should prove to be pregnant, which point was debatable, but on dilating and exploring the uterus we did find a three months foetus sharing the sacred interior with a lemon-sized pulpy mass. We thereupon determined to do a hysterectomy, and were rewarded by delivering a more or less pedunculated sub-mucuous fibroid, which was beginning to break down.

The only conclusion necessary to draw has already been stated in the prologue. Whenever bleeding appears from the pregnant uterus, however small the amount, or however infrequent the incident, that uterus automatically becomes a heavy burden of responsibility upon the attending physician's shoulders, which burden can only be eased by conscientious and skilled effort to locate the cause. The morbidity of the mother and child incident to diseases, whose first warning symptoms are hemorrhage, at this time is too appalling to be lightly observed. Further, being forewarned permits us in some sense to become forearmed, and in being forearmed we discharge more creditably the duty imposed by this series of obstetrical emergencies.

THE PROPHYLACTIC AND ACTIVE TREATMENT OF THE TOXEMIAS OF PREGNANCY.

By Rovert E. Seibels, M. D., Columbia, S. C.

Occurrence:—In the report of an obstetrical hospital we find that toxemias occurs in 1.2 per cent of the admissions. While this represents a larger proportion than we might expect in practice, they present themselves in sufficient frequency and severity to make the subject a profitable one for consideration.

Morphologically and clinnically we find two rather well defined types of cases. First, the renal type with acute glomerular nephritis, high blood pressure, and urine showing low urea and high amount of nitrogen, with albumin, hyalin and granular casts. Second, the hepatic group with the liver at fault and very little or no renal lesion; they primarily show only a faint trace of albumin, with normal blood pressure but they vomit blood, are jaundiced with petechiae and at autopsy we find hemorrhagic necrosis in the liver lobules. These lesions lead to a symptomatology of pernicious vomiting in the earlier months, and to threatened eclampsia and eclampsia in the later months of pregnancy.

What can we do to prevent these developments? The key to the question is to regard each pregnant woman as a potential severe eclamptic and to guide her in diet and in activity as such.

The pregnant woman should consult an obstetrician as soon as she knows that she is pregnant. At the first visit she should receive a complete and general physical examination, including especially pelvimetry, blood pressure and examination of the urine for albumin and sugar and of a centrifugal portion for casts. While the normal systolic reading may range from 100 to 130, we regard with suspicion a pressure above 130, and a faint trace of albumin demands the examination of a specimen by catheter to rule out contamination. To have a patient with normal findings simply send a specimen to the office every so often and to see her only when she complains of unusual symptoms, is a dangerous practice. In the hepatic type, and sometimes early in the renal type, urine giving slight or no evidence may be secreted by a woman on the verge of an explosion. The obstetrician owes it to himself and to his patient to see her every two weeks, to take and record the blood pressure and to question her closely as to symptoms. The responsibility of a physician in a case of eclampsia that develops under his care is second only to that in puerperal infection.

The patient should avoid meat, using it not more than twice a week, should abstain from the meats high in purins (sweetbreads, liver, brains) and the quickly growing vegetables and all highly seasoned foods and drinks. She must not expose herself to colds by wearing low-necked dresses, must not sit in draughts when overheated, must exercise but in moderation. These general directions should be supplemented by specific instructions: it is my custom to supplement by giving each patient the following written rules:

"1. Come to the office every two weeks and bring a bottle containing the first specimen of urine passed that day; even if feeling perfectly well, come on the

*Read before the Tri-State Medical Association February, 1920.

date you are given. (And to this end they receive a card indicating the day and hour of the next engagement).

2. Have the bowels move each day and report any failure to do so.

3. Exercise by walking two miles each day. Avoid rough motoring. Do not dance, ride horseback, play tennis or go in the surf. (To those who do their own work I explain that washing clothes, the sewing machine and scrubbing floors may be necessary but should be reduced to a minimum.)

4. Drink six glasses of water each day—one on arising, two in the forenoon. two in the afternoon, one before retiring.

Pernicious vomiting has been defined as such an increase in the usual vomiting that the stomach becomes more or less completely intolerant of food and drink. These signs associated with high ammonia nitrogen and low urea nitrogen in the urine. For this situation we have usuually an effective treatment in the diminution of protein in the diet and increasing the elimination by the following measures: liquid diet for a few days forcing the water intake to the limit of tolerance, daily irrigations, and catharsis with salts. By these measures the toxemia can be cleared and the pregnancy continued on a low protein diet with correction of habits as to bowel movements and the supervision of the nervous and general physical activity.

Occasionally the condition of the patient may be so poor or the toxemia may be increasing to such an extent as to indicate the necessity for emptying the uterus. In the earlier months this is a relatively simple procedure and it should not be delayed too long. If the vomiting should be combined with jaundice, there should be a rise in the ammonia nitrogen and a fall in urea nitrogen, or there should be hematemesis, we may be very sure of acute liver damage and should not endeavor to continue the pregnancy.

Threatened Eclamptics and Eclamptics may be divided into three types:

1. Those who have had excessive vomiting in the early months with more or less headache and malaise and who, about the eighth month, after a slight indiscretion in diet or activity, consult a physician who finds albuminuria associated with high tension and toxemia.

2. Those cases who have been perfectly well and whose urinary findings have been normal, without warning have a sudden explosion, go from one convulsion to another and to coma and death.

3. Certain women present themselves for treatment with symptoms not obviously associated with toxemia (ringing in the ears, epigastric pain or diarrhoea) and the toxemia is discovered in the routine examination.

The patient who has reached the point of being a "threatened eclamptic" is in a most serious condition and deserves the most thoughtful care. Briefly, we direct our efforts along three main lines—decrease the further ingestion of protein, increase the elimination, and control the convulsions.

We decrease the protein intake to a minimum by putting her on a fluid diet without milk until the toxemic vomiting has abated and then the diet is changed to one consisting of carbohydrates to a large extent. If the pregnancy is continued to term the diet must be kept low in protein and high in carbohydrates; if it is interrupted the return to a mixed diet is controlled by the extent and permanency of the renal lesion.

To increase the elimination of the by-products of protein metabolism we have the routine that follows:

Calomel grs. 5 followed by Mag. Sulph. a half ounce after six hours.

Mag. Sulph. a half ounce each morning.

A hot pack once or twice a day.

Force the ingestion of water.

The rectal irrigation has been a most useful measure—but it requires the most careful management. The average nurse regards the order to give a "colon irrigation" using five gallons of soda solution, as an opportunity to subject the patient to repeated assaults by enemata—so that the patient is upset and rendered nervous and weak. By irrigation we mean that two tubes are put in the rectum for about five inches, an outflow and an inlet; the ordinary rectal tube is too large and too hard and we have used catheters, No. 24 and No. 20 say, with great satisfaction. A solution of hot (110 F.) soda bicarbonate, 30 grains to the pint may be used where there is a good distension and loss of tone but the soda is rather irritating and for frequent use normal salt

is better. The solution is introduced slowly and the position of the outlet tube moved until the outflow becomes steady, the patient lying on the right side and is instructed not to strain but to remain as quiet as possible. With care in its use as much as ten gallons can be run in and out with no discomfort and the removal of the accumulated gas and feces and the increase of kidney secretion. These irrigations are used twice a day.

Convulsions are controlled with ether —they are often prevented by the eliminative methods—and are reduced in number and severity by the reduction of blood pressure consequent upon the free exhibition of chloral hydrate, 20 grs. by rectum every four hours.

The question of emptying the uterus arises as soon as the diagnosis is made. If we are at the border-line of viability may feel that it is safe to allow the pregnancy to continue under careful supervision until the baby is viable, provided the toxic symtoms abate under treatment and a few weeks will mean the difference between non-viable and a viable fetus. But we must realize that such a patient is liable to a violent exacerbation of her symptoms at any moment and be prepared to terminate the pregnancy promptly. Rising blood pressure, increasing ammonia and decreasing urea nitrogen in the urine, vomiting blood, or a convulsion are the absolute indications for emptying the uterus.

The method of interruption of the pregnancy depends on the type of the case. Before the third month of pregnancy, the cervix can be dilated and the products of conception removed by curretage at one operation. After the third month two courses are to be considered: 1. Artificial dilatation of the cervix, by the introduction of a bag, rupture of the membranes and delivery as of a normal case or by version and breech extraction. In electing this course for the later months the obstetrician should limit it to those cases which can be safely allowed to go through the ten to eighteen hours necessary for its completion. And he must bear in mind that the symptoms will begin to clear almost from the moment of emptying the uterus and that each hour of insulting to the kidneys and liver further decreases the possibility of their return to normal functioning. The practice of rapid manual dilatation of a cervix not previously softened and rendered dilatable is a pernicious one and can not be used with safety: it frequently results in extensive laceration of the cervix, which tear will almost inevitably extend into the lower uterine segment, with the certainty of hemorrhage and the danger of infection. 2. If the condition of the patient is rapidly becoming more acute, if convulsions have occurred or in certain cases with long, rigid cervices, Cesarean Section is indicated. The introduction of Nitrous-Oxide Oxygen as a general anaesthetic and the perfection of technic so that the operation can be performed rapidly and with no shock, makes this a very favorable procedure.

After delivery the general treatment must be continued—the first convulsion may not appear until the tenth day post partum. We expect a decided increase in urinary secretion and a fall in blood pressure to occur within 24 hours, but high pressure and albumenuria will inevitably persist in some degree for weeks, and we seldom find a complete return to normal under six months.

The restrictions on diet and activity for the future deepnd on the degree of nephritis that is present and each case must be treated on the basis of the particular findings of it. From our standpoint, such a woman should not become pregnant or be allowed to continue a pregnancy until six months after her return to normal findings and only then with the distinct understanding that she must have most careful and constant supervision.

WILLIAM OSLER, M. D.

Personal Reminiscences

(Dr. Vander Veer, in the following lines, written for the Charlotte Medical Journal, gives us an intimate view of the life of Dr. Osler, as seen by a contemporary and associate. In the life of Dr. Osler there is much to emulate, not only as an intense student of medical science, but as an honest, upright man, who endeared himself everlastingly to his friends and associates. Dr. Vanderveer speaks from a full heart and says only what all would like to say who knew Doctor Osler intimately.—Ed.)

Not unlike the teacher who, during his annual vacation makes good use of

his time, in attending some National, International or Pan-American medical congress, and on returning relates to his class, perhaps at a meeting of the state or local society, possibly in an after-dinner talk to friends who may be tendering him a banquet, his impressions of the men he has met, of the papers read and discussed, of the clinics attended, so, in like manner now and then we have related by a member of our profession, who has reached nearly the forescore milestone, the tribute he wishes to pay to someone whose great merit and reputation has become world wide.

This is the impulse that prompts the presentation of this paper.

I did not form the acquaintance of Dr. Osler until he had been a resident of the United States for some time, but his writings had always attracted my most earnest attention, and the benefit derived was such as to command my warmest affection and admiration.

Dr. Osler will be remembered by many grateful patients in America, and, particularly, by a class of physicians, much his senior, of whom there are but a few now surviving.

To the latter it was Dr. Osler who gave them confidence to encourage laboratory research work, when the previous results had too often been so uncertain as, at times, to place them in doubt. In his teaching, and in his hospital instruction, he had established such a positive reputation for honest work and truthful presentation of medical facts, that, when from his investigations came the blood platelets of that day, belief brought us comfort, and soon confirmed the faith the profession had placed in him.

His writings, resulting from the thorough understanding of the methods employed by the great men of the early part of the century, had made a profound impression. No one of the American students, who, up to 1860, had followed the English, French and Italian schools and hospitals, succeeded so well as Dr. Osler in presenting their conclusions, and later, in the last quarter of the century, in giving to the profession of this country new thoughts and ideas and the origin of a belief in scientific medicine. No man can claim the honor of having done so much for scientific medicine as did Dr. Osler in the last fifty years. He surely did more than any other writer, in his earlier studies, in establishing the modern status of the American clinicians of this period. The history of his great work is to be found in the records of our best medical institutions and hospitals of his native and adopted countries. His writings on medical subjects, the solving so many hidden problems, in his communications to our medical journals, the correct classification of symptoms and clinical observations, during the periods of which reference is made, have ever been welcomed as safe procedures in our practice.

Among the early recollections of his earnestness of purpose in completing the history of a case, was the impressive report of an autopsy held, through the determined efforts of a Canadian physician in securing the same, and in which Dr. Osler gave such an interesting account of conditions found. As related by him, this occurrence took place in the home of a humble farmer, and gave courage and perseverence to more than one of the older workers of that day, who were endeavoring to get nearer the truth in the study of cases.

Those who were present at the meeting of the Medical Society of the State of New York will not forget his reading a paper on "The Etiology and Treatment of Typhoid Fever", and this was but a fragment of the good, that, in so many instances, has resulted from other similar contributions.

It cannot be said that his research laboratory work was limited to a narrow field in medicine: Witness his excellent monographs on "Abdominal Tumors, Angina Pectoris, Cancer of the Stomach," and—but I am writing from the fullness of my heart and will not attempt too close an analysis of his recorded labors.

Dr. Osler's lovely, charming manner, when introduced to strangers, with that quiet expression, at times bearing the humor of an Oliver Wendell Holmes, and with a grasp of the hand was exceedingly winning in every way. One had to be in the presence of his conversation but a short time in order to understand his capacity for organization and efficient work. The industry of his heart and hands was soon made apparent. His devotion to medical education has been so well shown in his zealous and faith-

ful attention to details. Among the older members of his profession in the United States his example awakened an interest so strong as to aid in securing better results, and, above all, a feeling of greater security in making a more correct diagnosis of their cases. His essays and addresses on representative men of the medical profession, and other subjects, are, among the most attractive of modern contributions to the history of medicine. We will never fully realize how much his hearers have been benefitted by listening to them, and what a joy in re-reading them from time to time, especially by the weary, occasionally depressed, possibly discouraged practitioner. Dr. Holmes, in his medical writings, gave us much to arouse our thought and curiosity, in endeavoring to understand the current, the channels of medical practice, but Dr. Osler's admirable, practical clinics presented us with lasting and serviceable object lessons. Imagination fails to point out the hints he so modestly made from time to time in his clinical and didactic lectures, and which may have started a Walter Reed and others in their successful discoveries. It is difficult to find another illustration where a laboratry or clinical research worker has been able to hold his assistants so steadily as did Dr. Osler, and then to note the success of their labors when left to their own efforts and resources.

In medical teaching how very few have been able to cover the ground from primary studies to final graduate courses, and, later, into hospital and private practice. What an amount of wisdom is embodied in his advice "not to overburden a student with extra courses of lectures given in his graduating year." Dr. Osler made it plain that such a course might defeat its own object, by interfering with his work at the most important period of his student life. The bringing into his clinical instruction historical facts and the delightful evening with his "boys," as it has been told me, has never been equalled by any other method.

And now the members of the medical profession throughout the world are called upon to part with Dr. Osler, but their appreciation of the suggestions made by him to the busy practitioner in his relaxation and recreation periods will not cease. The man who follows Dr. Osler's advice will be happier, better satisfied with the discharge of his professional duties, and, in his span of years, come much nearer to the period we are now approaching, than in giving every moment of our time to doctoring.

Notwithstanding this strong advice from Dr. Osler, there are strong reasons for believing that during the past few years of his life he was constantly overworked, especially during the time of his service as medical advisor to the British Army Hospitals. He was so thoroughly anxious to have the soldiers receive the full benefit of modern, up-to-date treatment, and in doing so gave himself much keen anxiety. And then more sad than all was the death of his only son, a lieutenant in the British Army, and killed in France, in one of the battles at the front.

Dr. Osler was a great physician, a scientist, a poet by nature, a philosopher, and a very great teacher.

Albert VanderVeer,
28 Eagle Street, Albany, New York.

THE VALUE OF MILITARY SURGERY IN CIVILIAN PRACTICE—RESULTS OF ANOCIATION IN REDUCING MORTALITY.

F. H. McMechan, A. M., M. D.,
Avon Lake, Ohio.

In addressing the seventy-third annual meeting of the Ohio State Medical Association (Journal O. S. M. A., September, 1919, page 541), George W. Crile, of Cleveland, emphasized the value of anociation in reducing operative mortality.

"The Interallied Surgical Conference," said Dr. Crile, "adopted as one of its conclusions that in the treatment of wounded soldiers the anaesthetic of choice is nitrous oxide-oxygen combined with local anaesthesia. Among the evidence offered in support of this tenet Surgeon-General Sir Anthony Bowlby presented the work of one of the most brilliant British military surgeons, Captain Douglas C. Taylor, and the work of the Chief of the Anaesthetic Service of the British army, Captain Gregory Marshall. The experience of Captain Taylor I am privileged to quote. He has summed it up as follows: 'Until the summer of 1917 my colleague, Captain G. Marshall, invariably gave ether for my

laparotomies for gunshot wounds of the abdomen. No series of 100 consecutive cases showed a recovery rate of much over 50 per ment.

" 'During the summer and autumn of 1917, I did 101 laparotomies for abdominal wounds, and nearly half of them were given nitrous oxide and oxygen combined with infiltration of the abdominal wall with eucain and novocain. The more serious cases, i. e., those with rapid pulse and low pressure were nearly all done by this method.

" 'Of this series, 27 died at the Casualty Clearing Station, and 74 were evacuated to the base; of the latter there have been only two deaths, both from secondary hemorrhage—one from the kidney and the other from the rectum and buttock.' "

That is, by the employment of anociation, Captain Taylor's mortality rate was reduced from approximately 50 per cent to 29 per cent.

Captain Marshall has demonstrated that patients may apparently do well during ether anaesthesia but do badly afterward, while they do well both during and after nitrous oxide-oxygen anaesthesia.

The experience on a large scale of the resuscitation teams from the Lakeside unit which served continuously throughout Field Marshal Haig's great offensives in Flanders in 1917, during which there were over 800,000 casualties, showed that in abdominal operations somewhat better results were obtained if, before the beginning of the operation sufficient blood were transfused to permit a safe performance of the operation; and again at the completion of the operation an ample amount of blood up to 750 c. c. were given. Furthermore, if a let-down appeared later, the transfusion might be repeated. Meanwhile the advantages of comfort, rest, warmth, morphia and fluids were added.

The advantages of the nerve-blocking are further emphasized by Colonel Cabot's series of 180 amputations of the thigh, one-half under ether, and one-half under spinal anaesthesia with a reduction of mortality by the use of spinal anaesthesia of 50 per cent; while Captain Taylor by the use of nitrous oxide-oxygen reduced his mortality rate for thigh amputation more than 200 per cent.

A Note on the Value of Nitrous Oxid-Oxygen Anaesthesia in War Surgery.

Reporting to the Southern Medical Association on his experiences with anaesthesia in war surgery, Dr. Addison G. Brenizer, of Charlotte, N. C., formerly Chief of Surgical Service, Base Hospital No. 6. A. E. F., says that nitrous oxid-oxygen was used only between September 10 and November 14, 1918, not that the surgical staff did not perfer it, but because the unit was late in receiving its apparatus and was not able to secure more gas when the first supply was exausted.

Publishing his observations (Southern Medical Journal, October, 1919), Brenizer explains that:

"During the 65 days period anaesthesias were given as follows:

Ether	473
Nitdous Oxid-Oxygen	341
Local	87
Chloroform	7
	908

"We have used ether overwhelmingly over other anaesthetics, quite a number of infiltration anaesthesia with novocaine and cocaine and but little chloroform. We have rarely used ethyl chloride as a general anaesthetic, but have used it locally for small incisions. There was but one death we could attribute to an anaesthetic and that was a death from chloroform in unskilled hands.

"The tranquility of the patient, the rapidity and ease of induction, the rapidity of recovery and the safety withal, gives nitrous oxid-oxygen quite an advantage over other anaesthetics in the first and second stages of anaesthesia, especially in cases where an absolute muscular relaxation is not needed. Even when ether is superimposed for deeper anaesthesia, the amount is reduced to a minimum to maintain the period of relaxation.

The types of cases were gas-oxygen is most valuable are:

1. Shock cases.

2. Cases where operation is to be of short duration.

3. Cases where the condition is profoundly bad and the post-operative period treacherous.

4. Chest cases, with the exception of those liable to show hemorrhage, and

5. Infection of the respiratory tract.

Gas-oxygen is of great value in war surgery since the greater number of delayed primary and secondary suture of wounds can be made with the use of this anaesthetic alone.

The special advantage of gas-oxygen in war surgery are:

1. Ease and rapidity of inducing anaesthesia, thus preventing a struggle, enabling the immediate beginning of the preparation of the field of operation and the carrying on of several parallel operations without the one disturbing or distressing the other.

2. Rapid recovery and rapid exchange of patients between operating room and ward.

3. The relief from the care of recovering patients on the wards and the consequent liberation of the personnel for other duties.

All these points are important when the large number of secondary wound closures are considered as many as 60 in a single day.

The comfort of the patient is a decided point. There was no death nor injury from this anaesthetic."

*WELCOME ADDRESS.

By Southgate Leigh, M. D.

Mr. Toastmaster and Fellows of the Norfolk County Medical Society:

As vice president of the society, the president being one of our honored guests, it becomes my duty and very delightful pleasure, on this happy occasion, to extend to those of you who have recently been in the patriotic service of our country, a warm and heartfelt welcome to our midst.

In the simple, though earnest, words through which I shall convey this welcome to you, you may be sure that I represent not only my own feelings, but that each and every one of us is of one mind and of one heart in this greeting, that we feel deeply grateful to you, are proud of your efforts and achievements, and are just as happy as men can be to know that notwithstanding the great and manifold perils through which you have passed, you have all of you returned safely to your homes and to your friends.

Through the wonderful and magnificent co-operation of the great American people, this whole terrible affair, our part in the great world war has passed off so smoothly and in a way so simply, that even now it seems like an unpleasant dream.

"Lest we forget," and just to bring the seriousness of it back to mind, let us recall for a few moments some of the events that transpired, the uncertainties that existed, the terrible position in which this country, as well as the whole world, was placed, and how succor swiftly came and the safety of the country was assured by the prompt, vigorous, unselfish, heroic action of you, our renowned and beloved guests, and the men of America who were associated with you.

When this country entered the great conflict, what was the situation? Our friends, the allies, had been steadily, slowly but surely, driven back on land, to a point where defeat seemed not very far away. The enemy's resources appeared to be without limit. The sea was teeming with submarine monsters, apparently numberless, and scattered in every direction. Every ship afloat was in constant danger of ruthless and cowardly destruction. England was threatened with famine. The allies were in desperate straits and in need of immediate help.

No one, on either side, could believe that our assistance could possibly reach them in time.

The situation in this country was not encouraging. We ha a very small army and our navy was inadequate. Our coast was practically unprotected. Our big ships had to be guarded closely to avoid submarine dangers. Our people realized fully that if the German fleet should break away from its British guard, great devastation would be wrought along the entire Atlantic coast, including this and other important ports.

It was at this juncture that the men and women of America, with one accord, answered the country's call of distress, sacrificed their own interests, and joined with the government in quickly forming a great organization, the most powerful that the world had ever known

*Read at an entertainment tendered the returning members of the society, Cafe Henry, Norfolk, Va., November, 1919.

or ever dreamed of, and got ready for the conflict.

To the honor and glory of the medical profession, be it said, that every call for volunteers was more than filled, and that practically every man volunteered before he was called.

The story, almost like a fairy tale, of the bringing together of the country's resources, the rapid making of a great army, and of its being transported, almost by magic, across the seas, and arriving just in time to stem the tide of the barbaric hosts, is too fresh in your minds to bear repetition here.

It was in you, our friends and representatives, that we took the deepest interest, and whose progress we watched with deep solicitude.

We saw you, without hesitation, give up your life's work and leave your dear ones, not knowing what the future might bring, but disregarding every other consideration to answer duty's call. You underwent seemingly unreasonable hardships at training camps. Mysterious and secret orders came to you, and you knew not when, how or where you would go. The horrible suffering and suspense of those dark days and nights in crossing the seas was enough to wreck your nerves, even though of steel.

We watched the splendid, ceaseless, productive work done by you on the other side, in saving lives, limbs and suffering; we realized the perils that surrounded you; we knew of your bravery and your disregard of personal danger, and we were proud of you, proud of every one of you, and proud to have been your associates at home.

We want you to know how each and every one of us felt about each and every one of you, and how we still feel and shall always feel, as long as life shall last. These are not empty words, crude though they may be. They come from the heart of us all.

You men deserve every good thing, every success. There is nothing too good for you. And the men who stayed behind are ready and willing to serve you and aid you in every possible way to make your future happy and successful.

We did what little we could for the cause, and to back you up in the great work, but it was nothing in comparison to what you did.

We rejoice that you have, all of you, returned in safety, and sympathize deeply with those of you who still bear the marks of the conflict in physical and mental suffering. We hope that all will be soon restored to your former health and vigor.

Notwithstanding the sad spectacle displayed during the past few months by the politicians at Washington, and notwithstanding certain signs of labor unrest, the world war has undoubtedly created a splendid spirit of patriotism in this country, and brought our people together in such close bonds that will be productive of great good in the future.

This has already been noted in our own profession, which has especially learned the lessons of efficiency, co-operation and the necessity for united effort.

Our section, Norfolk, Portsmouth and Norfolk County, is commercially developing by leaps and bounds. The medican profession has a wonderful opportunity here. By prompt, vigorous, cooperative effort ,a great medical center could be developed in our midst within the next few years.

Let me commend this thought to your earnest consideration.

In conclusion I would again assure you of a sincere and affectionate welcome from the members of the Norfolk County Medical Society.

AN ATTEMPT TO SIMPLIFY THE SURGICAL MANAGEMENT OF APPENDICITIS.

F. J. Morrison, M. D., Suffolk, Va.

In presenting this paper I realize that some of the suggestions are not new and I claim no originality for the most part, but a procedure is offered which has proven satisfactory in my hands.

In cases which present themselves for operation for either acute or chronic appendicitis the following procedure has been carried out by me with uniformly good results. We will subdivide the cases into pre-operative, operative and post-operative.

Pre-operative—The patient is put to bed, an ice cap applied in acute cases until ready for operation, and if there is much pain morphine 1-4 gr. and atropine 1-140 gr. is given, but in chronic cases a low soapsuds enema. Nothing

whatever is allowed by mouth.

One of the objects of this paper is to warn against purgation, not only before the patient is admitted to the hospital, but prior to the operation itself, in either acute or chronic appendicitis. No argument is needed to prove the error in acute cases for those who do surgery have too often seen the uphappy results of such practice.

I believe it a bad practice to give any purgative the night before any major surgical procedure for the following reasons: It is permissible two or three days before, but if given the night before it prevents the quiet restful night which should precede an operation, it reduces the vitality and does irritate the intestinal tract, which predisposes to nausea and gaseous distension. I have noticed in emergency surgery when there is not time for preparation the patients do as well, if not better, than those whose intestinal tract have been medicinally emptied.

Operative—First of all select an anaesthetists who is capable of giving ether, and not one who is more interested in what the operator is doing. I prefer a nurse who is especially trained along that line. This brings us to the preparation of the abdomen where so much time has been lost, and the patient has been scoured and scrubbed until the skin, if it ever was capable of combating infection has no barrier left. The method used by me is as follows: After the patient is fairly well under ether the abdomen is dry-shaved, wiped off with alcohol, 95%, dried and painted twice with iodine in alcohol, one part iodine and three parts alcohol. This completes the preparation of the skin.

In clean cases the McBurney muscle splitting incision is made, but much nearer the crest of the ileum than the classical incision. The appendix is removed in the usual way and the stump invaginated.

The peritoneum is closed with chromic catgut No. 0, chromic gut No. 1 for facia, plain gut No. 0 for the muscle and interrupted silk worm gut half inch apart for the skin.

I have closed a number of cases who had a small abscess well walled off without drainage. This I do not invariably do, but am draining fewer cases than formerly.

If salt solution is indicated I am in favor of from six to eight ounces slowly given per rectum rather than the Murphy drop method. The latter method is difficult of administration, not very well retained, the tube is constantly slipping out, soiling the bed and generally a nuisance to the patient, besides creating an irritation of the lower bowel. The salt solution can be repeated in from four to six hours, and has every advantage claimed for the drop method with none of the disadvantages.

Post-operative — When the patient reacts and there is much nausea and vomiting a glassful of water to which has been added one dram of sodium bicarbonate is given; usually this is ejected, but sometimes retained. In either event it can do no harm and does effectually wash out the stomach if not retained. After this one ounce of water is allowed every two hours, then two ounces every two hours, and finally crushed ice and ice water ad libitum. I can see no objection to water, except, of course, in cases where there is extensive peritoneal involvement.

If there is much pain after a few hours after operation morphine 1-4 gr. is given and does not usually have to be repeated. Liquid diet, except milk, is permitted in about 18 hours. A low soapsuds enema is given on the third day followed by soft diet after the bowels have acted, and in a few days regular hospital diet.

An enema is given every day thereafter if bowels do not move spontaneously.

The patient is propped up in bed on the third day and out of bed on the fourth or fifth.

A pad and wide adhesive dressing is applied and patient instructed to remove this when it becomes loosened. No other dressing or support is applied.

Summary—No oil or other laxitive is given. Morphine and atropine for pain when operation has been decided upon, and always before ether. Elaborate preparation of the abdomen is unnecessary. Salt solution six to eight ounces at one time and repeat if necessary. Incision nearer the crest of the ileum. Invagination of the stump of the appendix. Small chromic gut for the peritoneum and facia. Skin sutures close together. Water freely by mouth after patient has reacted. Enema on the third day and quick return to regular

diet. Allow patient out of bed early. If in doubt, do not drain.

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

ONE WAY TO SECURE MEMBERS.

The secretary of a county society in Tennessee has adopted an unusual method of securing members for his society. The same idea is modified and used in assuring attendance on the meetings of the society. He does not write to the doctor, but to the doctor's wife. We do not know the size of the secretary, but his idea is big enough. He begins with the following paragraph:

"My Dear Mrs._____:

"You have a husband, a man who is, or ought to be, in good standing and an honored member of the most philanthropic profession on earth. In your opinion, 'he is at the top of the pot' in his profession in this respect, and I sincerely hope your conclusions are correct."

He then recites the advantages of membership in the county society, quoting freely from the constitution and by-laws and from the Principles of Medical Ethics. He outlines the work of the society and tells what is done with the membership fee. The following extract from the body of the letter is of particular interest:

"Think, then, what an influence could be brought to bear upon our municipal, state and national administrations were 150,000 such men as your husband scattered over our country from Maine to California and from the Canadian line to the Gulf, united for the noble purpose of bringing peace, prosperity and happiness to our country in its present deplorable condition. United action on the part of the medical profession, with those whom it can influence, would cause those in authority to come to terms on the peace treaty and the league of nations, terminate the present epidemic of strikes, punish the profiteers, and banish all anarchists from our land within the next few months, or else put successors in their positions who will."

The following extract not only sets forth his intentions but doubtless serves as a warning and a gentle hint to those who are already members of the society, and whose wives probably also were favored with the letter:

"A well-conducted county society is really a post-graduate medical school, and I deem it not inappropriate to follow the example of the teachers in our public schools, and submit to 'his guardian' at the close of this year the grade 'her doctor' has made during the time I have been in office. If you are satisfied with his grade, I hope you will compliment him and encourage him to renewed efforts in the year upon which we are entering. If he has not come up to your expectations do not punish him and send him to bed supperless, as school children someties are for similar offenses, but talk to him as a loving wife should of his dereliction of duty, and if not already a member, appeal to him to make application at once for a membership in his county society so that you and the children will be prouder of him than ever before. This duty he owes to the profession, to himself, to his family, to his country, and especially to his patrons."

From his letter urging attendance on the meetings of the society, we take the following paragraph:

"Hearing this paper will make your husband more competent to differentiate in the various diseases of the upper abdomen. It might be the means of him, in the near future, saving the life of a patient—possibly a member of his family. Suggest, urge, impel and, if necessary, compel him to attend this meeting."

We are not informed as to the success of this plan. We submit it to our secretaries for what it is worth. So far as the grading is concerned, that is done in several of the societies in this state, and it is said to be rather effective. The idea of putting our wives next to our delinquency, however, is new and worth considering.

The annual convention of the National Anaesthesia Research Committee will be held in Pittsburg the week of October 4, in conjunction with that of the Inter-State Anaesthetists' Association and the Pennsylvania Medical Society. Prizes aggregating $200 are offered by the society for the best papers on original research in anaesthesia, such papers to be read at the annual meeting. This offer is open to all surgical, medical and dental students, and practitioners in the United States.

Charlotte Medical Journal

Published Monthly.

EDITOR

M. L. TOWNSEND, M. D.

J. C. MONTGOMERY, M. D. Executor
of the Estate of the late Dr. Register

CHARLOTTE, N. C.

Dear Doctor:

If this and the last issue of the Charlotte Medical Journal show any promise of being worth while, we want your support—your subscription. You can, no doubt, appreciate the handicap we have had in getting out these two issues . But we have undertaken the work with a firm determination to make this the very best medical journal that will come to your table. We are not asking charity, for if we cannot give you a journal that will be a real help to you and actually worth every penny of what it costs, then we will quit. But we can and will. There is absolutely no reason why we should not.

There are no better doctors anywhere than those who are going to contribute articles during the coming year and none whose teaching you can more safely follow. Then we are going to ask you to let us publish a report of your interesting and instructive cases. If you have a case that has puzzled and interests you, it will also interest your neighbor, and if you have spent hours and days in study and investigation of this case and will report your findings and method of handling it will help another who may tomorrow find such a case, and he will also report for your benefit the case he has especially studied.

Then, we all want to know what our confreres and fellows and their families are doing hence, we are especially anxious to have a full and live department of news items.

The department editors, too, are going to be on the alert for the newest and best ideas in the literature of their departments and are going to present only the very best. Be assured the Charlotte Medical Journal will not be anywhere but in the very forefront with the last word in our profession and if you keep up with this journal you will keep abreast of the times.

Naturally we cannot continue giving you this sort of a journal unless we can have your subscription. To those who will send in your subscription during the month of April we will date this subscription beginning with the August issue—three months extra.

The journal is your journal. Let's make it a good one.

ECONOMIC LOSS DUE TO SICKNESS.

The losses to society due to sickness are many and heavy. When figured in dollars and cents, not counting the sorrow and physical and mental suffering, the loss in actual working days, when calculated, represents an enormous figure.

Divided into three groups, determined by working ages, 65 per cent of sickness loss is occasioned among children under 15 years of age, 24 per cent between 15 and 54, and 11 per cent over 54 years old. Of the 24 per cent during the producing or working age, the average is 6.7 days per person per year sick and unable to work.

Of North Carolina's two and one-quarter million (approximately) there are 750,000 males and 800,000 females between the ages of 15 and 54, or a total of 1,550,000, who lose each year per person 6.7 days. This means in North Carolina there is lost to society 28,452 years of production, counting both males and females, each year.

The purpose of all armies is primarily to "win battles." Men sick in hospital cannot help do this. The memory of army life is yet fresh in my mind and I am still haunted by the ghost of the all-important purpose of keeping men fit and ready for service. Being in command of an organization composed of 1,000 men and 50 doctors, I had not only the opportunity but the duty of comparing the efficiency of these doctors in keeping men fit and when ill getting them fit and returned to duty—in keeping to the very minimum the loss occasioned by sickness. Results were what counted. A tremendous responsibility rested on the efficiency of the army medical officer (we are speaking now from a purely economic viewpoint) and today a tremendous responsibility rests on the doctors—the medical profession —right here in North Carolina. Millions of days of work and production are lost each year in this one state because of

sickness. Who else but the medical profession should the state look to to save this loss?

The state does look to YOU, doctor, and to me; the responsibility is OURS, individually and collectively. Can you each night after recounting and analyzing the day's toil, say, "I have done my part?"

TEAM WORK IN THE MEDICAL PROFESSION.

Like all other things modern, the practice of medicine in this wonderful twentieth century has reached a high degree of specialization and made the rugged road of the beginner much harder than heretofore. It is no doubt on a much more scientific basis with all the highly specialized men devoting their entire study to limited portions of the body, and some even to the treatment of only one disease, but in order to get still better results we must follow the example of a few and begin team work.

By team work we mean to get enough special men together to make one all-around good man and then we can do real scientific medicine. In the cities a happy combination is an internist, a surgeon, and an eye, ear, nost and throat specialist, with a combined roentgenologist and pathologist having offices with a common lobby, so that when patients come in they can be run through the mill, so to speak, and a conclusion reached without having them travel two or three miles up elevators from one doctor to another and becoming disgusted with the highly specialized medical profession. Financially it is also a success, and one book-keeper could easily keep separate accounts for all or have one account and each man get a specified percentage of the net earnings. Above all things it would improve the fraternal spirit in the profession, and tend to bring us much closer together.

In the small towns this team work would apply as well, for although the majority of the men are general practitioners, one man could fit his office especially for medical work, another small surgical operations and another laboratory work. In this way they would be able to handle a large part of the work that they are now referring to the city hospitals, and they could give their patients much more efficient service.

Since ours is a life of service we should serve well, and in my oipnion when we come to realize the value of team work and practice it as a few are already doing, we will have reached the criterion of service to humanity and fraternal spirit in the profession.

"SIX DAYS SHALT THOU LABOR AND DO ALL THY WORK."

The same God who laid upon the children of Israel the injunction to observe the sanctity of the Sabbath proclaimed also the holiness of toil and declared that labor is the law of salvation. In this crucial period of human history it behooves us all to give heed not to one-seventh of this commandment only but to the six-sevenths with which the Almighty glorified toil and translated work into a form of worship.

There is nothing in this commandment that we of the present day are warranted in interpreting as Divine Sanction for shorter hours or artificial restriction of production. "Six days shalt thou labor"—not six hours a day, not even eight hours a day, but so many hours as may be required to do all thy work. So long as production lags behind the needs of a hungry world, all our work is not done, and every hour wrested from the working schedule of the week is an hour of violence to humanity and of blasphemy to God.

If the executives, the sales managers, the bookkeepers, the stenographers and the clerks, the advertising men and those of the sales force do not work with a keener sense of the obligations that rests upon them,—if those in the high places do not make their brains more productive, small license shall they have for casting the stone of opprobrium at the ignorant, the brutal, and the reactionary in the ranks of organized or unorganized physical labor.

"Did the doctor treat you?"

"No, he charged me five dollars."

Urology

A. J. Crowell, M. D., Department Editor

Recognizing the fact that Urology, Genito-Urinary Surgery and Venereal Diseases is fast becoming a specialty of recognized importance in medicine and surgery, the editor of the Charlotte Medical Journal in assuming responsibility for its publication has decided to establish a department under this heading in the Journal. He has requested me to assume the responsibility of department editor. In assuming this obligation I shall endeavor to present, in brief extracts from papers, conclusions reached from scientific research work as it may be called to my attention from time to time and such other news items as are pertinent and of interest to the Genito-Urinary specialist and general practitioner.

We think the editor wise in establishing such a department but is probably unwise in the selection of the editor for this department. However, I will do what I can to make it especially interesting and helpful to those who limit their work to this specialty as well as all who in their day's work meet cases of this class.

Calculus of Both Kidneys in a Child Five and a Half Years Old.

Moran(Journal d'Urologie) reports a case of calculi of both kidneys in a child of five and a half years which he thinks worthy of note on account of the rarity of calculus of the kidney in a child of this age and also on account of the number, size and composition of the calculi, and the termination in complete recovery after operation, which consisted in going into the left kidney by a lumbar incision and extracting the four calculi which had been discovered by a radiograph. This operation was borne so well that the right kidney was also operated upon in the same manner, and the single calculus found in this kidney removed without difficulty. Drains were placed in each kidney, and the lumbar incision closed. The operation was performed on the 31st of March and by the 10th of April the patient began to urinate by the natural passage. From this time on the urine flowed more and more from the natural passage. It was at first cloudy and contained pus, but this gradually cleared. By May 13th the patient was dismissed, although there was still a considerable number of leucocytes in the urine, and there was hypoacidity, but no albumin by the acetic and acid-heat test.

The calculi were greyish-white or fracture, the surface yellow crystalline and very hard. They were composed of 99 per cent calcium oxylate.

Urinalyses which were made at frequent intervals for some months showed the gradual disappearance of all pathological elements, and the examination on the 22nd of December showed the urine to be normal.

Preventive Treatment of Chancre.

Lapere and Laurent (Bulletin Medical) find that intravenous injections of novar-senobenzol prevent the development of the syphilitic chancre, and cite cases of exposure to infection in which this post-propylactic measure was successful. It is advisable to give several doses, though one may suffice. Very weak doses should be used at the start.

Gynecology and Obstetrics

Robt. E. Seibels, M. D., Department Editor

Ovarian Therapeusis: Contemporary literature contains a good deal of comment on the beneficial results of ovarian administration. Various forms of the gland have been used: whole gland, whole gland extracts and ovarian residue as well as preparations of corpora lutae. While the number of cures and the diversity of pathological processes which have yielded to its exhibition are suspiciously large, one is impressed with the possibility that we have found certain substances in the ovaries of animals which may supply suman deficiencies and relieve the symptoms peculiar thereto. The dosage varies with different authors and different preparations but the consensus of opinion is that it should be administered with full dosage at the beginning and gradually reduced to a small weekly amount. The cases showing most marked benefit are those of surgical menopause; amenorrhea, dysmenorrhea, and nervous symptoms

associated with menstruation have been benefited frequently. Certain cases of the vomiting of the early months of pregnancy have been very satisfactorily relieved, it has been reported.

Medical and Surgical Gynecology: The physician who sees the largest number of gynecologic cases is frequently not the one who does the most operative work. The surgical treatment is in the hands of a general surgeon, who sees the patient at a certain stage of the pathological process, operates, and after her discharge from the hospital sees her no more. And, hence, it would seem, in certain operations: if the surgeon came in closer contact with the preoperative condition and had the chance to study the postoperative results over a long period, he would, not infrequently, revise his methods as well as his reports of cures. As a concrete example, take pelvic inflammatory disease; how many times a subtotal hysterectomw with salpingo-oohorectomy is performed, and the patient returned to her physician, who proceeds to continue to treat the diseased cervical glands for many months before the discharge ceases.

And the other side of the story is along the same line, for the so-called "medical gynecologist" often wastes time with local applications when a surgical procedure is inevitable. All of which leads to the observation that gynecology can be divided into medical and surgical with no more wisdom and success than laryngology can be. It is a specialty for which a physician must equip himself by a knowledge of and ability to carry out both lines of treatment.

Orthopædics

Alonzo H. Myers, Department Editor

The word "Orthopaedics," though its real significance is still quite vaguely understood, has obtained wide circulation since the beginning of the recent world-wide war.

A phase of great importance and of particular interest is the great revelation and enthusiasm which the recent war has brought about with regard to painful and flat feet, as is indicated by the increased number of reports by the specialists of their work and by the increased interest of the general practitioner and laity in detecting foot troubles.

Judging from the articles and the work recently reported by many of the prominent orthopaedic surgeons of America and Europe the term "painful feet" is only a symptom, indicating an abnormal posture, or a disturbed foot anatomically, producing an abnormal weight bearing foot.

It is gratifying to know that the profession is being educated to the fact that many of these cases are relieved and cured by a properly fitting footplate, which not only supports but attempts to correct the predisposition to an abnormal attitude. Instead of these cases going from store to store for arch supports, which are supposed to fit everyone and naturally fit no one, resulting often times in an exaggeration of the condition instead of relieving it, we now have plaster of paris impressions made which insure properly fitting metal supports, thereby relieving the acute condition and preventing further trouble by merely correcting the attitude in walking.

X-Ray and Laboratory

Robert H. Lafferty, M. D., Dept. Editor.

An effort will be made in this department to give the profession from time to time anything of interest that may transpire in these departments. And to suggest articles appearing on different subjects rather than review or reproduce such articles.

The clinical laboratory has secured such a foothold in the practice of medicine that its place is secure, and rare is the man nowadays who does not rely upon the clinical laboratory in the formation of his diagnoses.

The Roentgen Laboratory has also gained a secure place as a diagnostic aid. This has been augmented very largely by the place it was given during the war and the service it rendered. But, like the clinical laboratary, the x-ray does not aspire to replace the diagnostic touch and ear of the physical examination.

The latest advance in the realm of Roentgenology is the so-called "pneu-

moperitoneum" work. By this we mean the injection of oxygen or air into the peritoneal cavity in order to bring out by contrast the soft tissues as the heart is brought out embedded in the lung tissue. This enables one to locate tumors, enlarged glands, abscesses and adhesions very clearly. To date there have been no bad results reported and if the proper precautions are observed there need not necessarily be any to report. This process is elaborated in the articles by Stewart in American Journal of Roentgenology, Vol. VI, No. 11, November, 1919, and by Orndorff in the Journal of Roentgenology, Vol. 11. No. 3, September, 1919.

NEUROLOGY.

R. F. Leinback, M. D., Department Editor.

A plea for neurology is that although so often unrecognized or possibly wilfully ignored, yet all physical ailments have a definite influence on the nervous system. True it is that in that person with slowly responsive nervous "make-up" this influence may not be emphatic, yet it is felt, and should be taken into consideration in dealing with the sum total of the patient's condition. If a delicate electrical apparatus is exposed to sudden shocks and excessive currents it quickly loses its accuracy and acts in all sorts of peculiar ways. On the human nervous system repeated assaults produce a varied number of effects—perhaps a psychosis, a paralysis, hyper or hypo-sensitiveness, deranged muscle control, etc.

Perhaps there is nothing radically wrong as yet with the nervous system itself and the manifest symptoms are only nature's language trying to tell just what and where the real trouble is. To learn this language and to locate the trouble is a science no doctor can lightly pass by.

"Shell shock" (if not a misnomer is certainly not accurately expressive) is a term representing the effects of some kind of severe or repeated assault to the nervous system. Equally baneful effects may be and are produced in a more sensitive individual by much less pronounced causes. War and the explosion of enemy shells produce a train of symptoms conveniently called "shell shock" but in every peaceful village or noisy city there are found individuals who are suffering the same. It is regrettable to admit these latter do not get the study, help and sympathy from the medical profession they deserve and should have.

Hospitals and Sanatoriums

John Q. Myers, M. D., Department Editor

The demands that are being made on hospitals at the present time need the hearty co-operation of all who are interested in the care of the sick. The crowded rooms, the shortage of nurses, the tired, over-worked physicians and surgeons, the necessity for the classification and standardization of the various institutions, together with the high cost of living, all go to make the problem of operating a hospital all the more difficult and in order to meet these problems everyone intersted should feel it a duty to enter into the organization of a State Hospital Association whose mission is to work out the best plans to accomplish the most good to the greatest number.

The program for the second annual meeting is included in the program of the North Carolina State Medical Association and you will see the keynote is the standardization of hospitals.

What will we do?

Nurses Corner

Edith M. Redwine, R. N., Dept. Editor

Probably the largest number of trained nurses and people interested in the subject of public health nursing that have ever gathered together in this country are now in convention (April 12-17) in Atlanta, Ga.

The American Nurses' Association, the National League of Education and the National Organization for Public Health Nursing are holding their joint biennial convention. In attendance are delegates of these three nursing organizations from every state in the United States and it has been predicted that the attendance will surpass that of the Philadelphia convention in 1917 in which more than 2,500 were present.

Of the three great national nursing organizations, the National League of Education is the oldest, having been organized in 1893 under the name of "The American Society of Superintendents of Training Schools for Nurses," with the aim of elevating the educational status of nursing and sustaining the best professional ideals. It was in June of 1912 that the name of this society was changed to that which it bears at present, which is more truly descriptive of the aims and membership; for as nursing schools developed, it became obvious that instructors of nurses be eligible as well as the executive head of the schools.

This association has held regular annual meetings, and most of the advanced movements concerning nurses have originated in it. The committee on education in schools for nursing is at present working on a suggested curriculum that will be of great value in bringing about a uniform standard in nursing schools.

At the third annual meeting of the league in 1896 the American Nurses Association came into existence under the name of "The Associated Alumnae of the United States and Canada," and at its first annual meeting 23 training schools were represented. Later on, in 1901, the organization was incorporated, and in 1911 adopted its present name.

At its annual meeting in 1899 the advisability of publishing a periodical was discussed, and a committee was appointed to submit plans and methods of establishing such a publication, the result being the formation of a stock company and the publication of the first copy of the American Journal of Nursing in 1900. In 1912 this association took over the American Journal of Nursing.

The youngest of the three nursing organizations is the National Organization for Public Health Nursing, which came into existence in 1912. It is a professional association similar in character and purpose to the American Public Health Association. Its membership is composed of individuals, both lay and professional, and of associations engaged in public health and social service activities.

This organization encourages both the demand and the establishment of suitable post-graduate and under-graduate education for public health nursing and through the publication of the "Public Health Nurse" and bulletins distributes advice and information. Surgeon General Ireland has ordered the chief nurses of all the army hospitals in the country to duty at Fort McPherson for this week in order that they may attend.

In addition to nurses from all parts of the United States there will be present delegates from several foreign countries, including England, France, Norway, Holland and Canada.

The program includes a number of very interesting features. The principle social feature of the convention is a reception given by the Atlanta Federation of Women's Clubs. There will be sessions devoted to mental hygiene, private duty nursing, hospital social service, industrial hygiene, new fields for public health nursing, rural problems, community organizations, school nursing, etc.

222 NURSES DECORATED.

The latest figures from the War Department show that the pluck and the high professional skill of American Red Cross nurses, reserve members of the Army Nurse Corps, won for 222 of them decorations for citations from the United States and various foreign governments. Courageous and untiring, the full measure of credit due these workers can never be given. Europeans realize more fully the value of their work because of direct contact with it, and the most enthusiastic admiration of the Old World goes out to them. But instances of extraordinary individual effort from varied sources reach the ears of Americans.

NEW HOME FOR NURSES' CLUB.

The Atlanta Registered Nurses' Club moved March 20, into a splendid new home. The building is centrally located and will accomodate 110 nurses.

Mrs. Theodosia Wardell is in charge of the nurses' directory. With 110 of Atlanta's 156 nurses thus housed in this home the problem of locating a nurse is very much simplified. This is an example which could be profitably followed elsewhere.

NURSE ACCIDENTALLY KILLED.

Fayetteville, N. C., March 29.—Miss Sarah Balwdin, of Whiteville, special nurse at a local hospital, was fatally injured last night when she fell two

stories through an elevator shaft at the hospital, fracturing her skull. She died in less than an hour after the accident. dent.

Case Reports

Diabetes Insipidis, Report of Cure.

This disease is not of very frequent occurrence and after ten years of practice, I have seen only one real case. The latest clinicians give disturbances of the pituitary as the probable cause of diabetes insipidis, and in one case dying from recurrent cancer of breast with diabetes insipidis, it was found on autopsy that there was metastatic involvement of the pituitary, more especially the posterior lobe.

Cushing in his Shattuck lecture gave his opinion also that after animal experiments that the pituitary bodies governing this condition.

My patient gave a history of a chancre on penis eight years ago with only a little treatment, and the cause of the present attack was no doubt of the pituitarys.

Eight months ago he lost his appetite and began drinking and voiding large quantities of urine. He passed three and a half gallons each day with a specific gravity of about 1001 to 1003, and no sugar nor albumin was present. His pulse was irregular and very fast; mind dull and apathetic; very emaciated and so week he was almost bedfast. He probably could not have lived long at the rate he was losing ground. There were some nodes on the anterior tibias which appeared to be gummes.

I put him on an anti-syphilitic treatment with rather heroic doses and at this time (one month after treatment was begun) he has made wonderful improvement. Pulse is now regular and normal; has gained strength and flesh and his urine is almost normal again.

News Items

Dr. B. O. Edwards, formerly of Landis, N. C., has just returned from a seven months' trip through Central Europe where he has been doing research work in tuberculosis. Dr. Edwards took a course at the University of Edinburg after which he visited 32 tuberculosis sanatoria in England, Scotland. Ireland, France. Switzerland, Italy, Belgium, Holland and Germany. He reports a most pleasant and profitable trip and research study and no wsince his return three weeks ago has located in Asheville where he will do only tuberculosis work.

Dr. R. F. Yarborough, Louisburg, N. C., who resigned a lucrative practice to enter the U. S. army in 1917, and who, after his discharge in 1919, accepted the position as physician to the State College at Raleigh, N. C., has resigned the latter position and resumed his former practice at Louisburg.

Friends of the Mission Hospital, Asheville, N. C., are pushing with every prospect of complete success a drive for the securing of $250,000 for the building of much-needed additions to building and equipment. With the many admirably appointed private hospitals and sanatoria in and about this delightful city of the Western Carolina mountains, it is quite fitting that the eleemosynary institutions should aspire to the very highest grade of modern hospital.

Surgeon-General Rupert Blue of the United States Public Health Service has started a campaign here in America to reach al lthe boys of America between the ages of 15 and 20 years and interest them in a campaign to keep themselves physically fit. Surgeon-General Ireland of the Army and Surgeon-General Braisted of the Navy have endorsed this work and are aiding in it. It also has the backing of the Y. M. C. A., churches, welfare organizations and educators throughout the United States.

AMERICAN PATHOLOGIC SOCIETY MEETS IN MEMPHIS, TENN., APRIL 22-23, 1920.

Program has been received of the meeting of the American Pathologic Society in Memphis, Tenn., April 22-23. This meeting promises to be most helpful and interesting.

Beginning April 22, 1920, executive council meets at 8 a. m. First regular session at 9 a. m. Details of clinics will be announced at the sessions.

Annual Presidential Address—"Co-

operation and Co-ordination," Collier F. Martin, Philadelphia, Pa.

1. "Post-operative Treatment of Fistula with Special Reference to the Use of Gutta-Percha Tissue," Alfred J. Zobel, San Francisco, Cal.

2. "Some Aids in the Record Keeping of Ano-rectal Cases," Ralph W. Jackson, Fall River, Mass.

3. "Standardization of Hemorrhoid Operations," Louis J. Hirschman, Detroit, Mich.

4. "Personal Experience in the Treatment of Internal Hemorrhoids," Alois B. Graham, Indianapolis, Ind.

5. "A virulent Infection of the Colon by Colon Bacillus," Jerome M. Lynch, New York, N. Y.

6. "Pleuro-colonic Fistula," Frank Y. Yoemans, New York, N. Y.

7. "Reflexes Due to Rectal Diseases," William M. Beach, Pittsburg, Pa.

8. "Pre-operative Treatment in Rectal Surgery," William H. Stauffer, St. Louis, Mo.

9. "Local Pain and Other Symptoms Associated with Infections of the Anal Tissues," Granville S. Hanes, Louisville, Ky.

10. "The Recto-vaginal Septum in Proctology," Descum C. McKenney, Buffalo, N. Y.

11. "Disabilities Due to Intestinal and Rectal Diseases in the Young Soldier," William H. Axtell, Washington, D. C.

Dr. Carl A. Neves is N. C. Narcotic Head.

Dr. Carl A. Neves has been appointed acting chief narcotic agent for North Carolina and a force of officers has been assigned to aid him in enforcing the Harrison anti-narcotic act. Dr. Neves will have an office in the Federal building, at Charlotte.

New rulings have also been made by the department in connection with the plans for enforcement of the law, it was announced, which will affect druggists, physicians, dentists and patients throughout the State.

Dr. H. H. Newman has been appointed coroner of Rowan county to fill out the unexpired term of the late D. L. Sides, the appointment being made by the county commissioners at their meeting this week.

Dr. J. Lester Ransom, Charlotte, N. C., has gone to New York, where he anticipates spending some weeks in the special study of anesthesia. We are informed that it his intention after the completion of this special work to return to Charlotte and limit his future work to that of anesthesia in all its various forms.

Gorgas Accepts Big Contract From Peru.

Lima, Peru, April 2.—Major General William C. Gorgas, former surgeon general of the United States army, sailed today on the way to New York, Belgium and West Africa, after having accepted a five year contract with the Peruvian government to direct an extensive sanitation program here. The retaining fee to be paid General Gorgas will be $15,000 a year.

General Gorgas will return to Peru in January next, his assistant, Colonel Wrightson, remaining in charge during his absence.

The Ninth Annual Convention of the Southern Sociological Congress meets in Washington, D. C., May 9-13, 1920.

The purposes of this Association are:

To promote health, justice, patriotism and training for citizenship.

To teach the sacredness of law, both as to person and to property.

To foster loyalty to home, church and government.

To make citizenship mean "Distinguished Service."

It is very desirous to make this department of the Journal especially interesting and we shall be very glad to publish news items that are of personal or general interest. Others are just as glad to learn what you and your family are doing as you are to learn about them. Of course doctors are modest (?) and don't want to be talked about and yet just notice and see if every one doesn't turn, the first thing, to the news items of any journal—and alas all too often when that is read the rest goes to the table or a chair or some corner for a year or two until the good wife comes in and raises "sand" about such a cluttered up office—then there is a general clean up and after all the news items were all that have been read. Anyway, send in these items.

Sixty-Seventh Annual Session
of the
MEDICAL SOCIETY OF THE STATE
OF NORTH CAROLINA
April 20, 21, 22, 1920
CHRLOTTE

Tenth Annual Session
of the
NORTH CAROLINA
HEALTH OFFICERS' ASSOCIATION
April 19, 1920
CHRLOTTE

Second Annual Session
of the
NORTH CAROLINA HOSPITAL
ASSOCIATION
April 19, 1920
CHRLOTTE

OFFICERS 1919-1920.

President—Dr. C. V. Reynolds, Asheville, N. C.
First Vice-President—Dr. H. D. Walker, Elizabeth City, N. C.
Second Vice-President—Dr. Stanley Whitaker, Kinston, N. C.
Third Vice-President—Dr. Thos. L. Fox, Franklinville, N. C.
Secretary-Treasurer—Dr. Benj. K. Hays, Oxford, N. C.
Acting Secretary-Treasurer — Dr .L. B. McBrayer, Sanatorium, N. C.

Councilors 1919-1920.

First District—Dr. F. B. Halsey, Roper, N. C.
Second District—Dr. K. P. B. Bonner, Morehead City, N. C.
Third District—Dr. J .W. Tankersley, Wilmington, N. C.
Fourth District—Dr. E. T. Dickinson, Wilson, N. C.
Fifth District—Dr. A. McNeil Blair, Southern Pines, N. C.
Sixth District—Dr. W. C. Horton, Raleigh, N. C.
Seventh District—Dr. L. A. Crowell, Lincolnton, N. C.
Eighth District—Dr. J. K. Pepper, Winston-Salem, N. C.
Ninth District—Dr. M. R. Adams, Statesville, N. C.
Tenth District—Dr. Eugene B. Glenn, Asheville, N. C.

Chairmen of Sections.

Practice of Medicine—Dr. Hubert B. Haywood, Jr., Raleigh, N. C.
Surgery—Dr. Eugene B. Glenn, Asheville, N. C.
Gynecology and Obstetrics—Dr. J. M. Manning, Durham, N. C.
Public Health and Education—Dr. C. C. Hudson, Charlotte, N. C. (Richmond, Va.)
Pediatrics—Dr. J. Baren Sidbury, Wilmington, N. C.
Anatomy, Physiology, Pathology and Bacteriology—Dr. H. P. Barrett, Charlotte, N. C.
Chemistry, Materia Medica and Therapeutics —Dr. C. S. Mangum, Chapel Hill, N. C.
Eye, Ear, Nose and Throat—Dr. C. W. Banner, Greensboro, N. C.

Committee on Arrangements.

Chairman—Dr. B. J. Witherspoon, Charlotte, N. C.

Committee on Scientific Work.

Chairman—Dr. Thurman D. Kitchin, Wake Forest, N. C.; Dr. A. S. Root, Raleigh, N. C.; Dr. C. D. W. Colby, Asheville, N. C.

Committee on Publication.

Chairman—Dr. B. K. Hays, Oxford, N. C.; Dr. L. B. McBrayer, Sanatorium, N. C.; Dr. D. A. Garrison, Gastonia, N. C.

Committee on Obituaries.

Chairman—Dr. Arch Cheatham, Durham, N. C.; Dr. E. G. Moore, Elm City, N. C.; Dr. F. R. Harris, Henderson, N. C.; Dr. N. D. Bitting, Durham, N. C.; Dr. B. O. Edwards, Asheville, N. C.

Committee on Finance.

Chairman—Dr. N. C. Daniel, Oxford, N. C.; Dr. A. B. Byerly, Cooleemee, N. C.

Delegates to the American Medical Association.

Dr. C. P. Ambler, Asheville, N. C.; Dr. H. A. Royster, Raleigh, N. C. Alternates, Dr. A. J. Crowell, Charlotte, N. C.; Dr. J. T. J. Battle, Greensboro, N. C.

Delegates to Virginia Medical Society.

Dr. Z. Fearing, Elizabeth City, N. C.; Dr. M. S. Martin, Mount Airy, N. C.; Dr. K. C. Moore, Wilson, N. C.

Delegates to South Carolina Medical Society.

Dr. Guy E. Dixon, Hendersonville, N. C.; Dr. N. A. Thompson, Lumberton, N. C.; Dr. S. A. Stevens, Monroe, N. C.

Committee on Education and Registration of Midwives.

Chairman—Dr. Charles O'H. Laughinghouse, Greenville, N. C.; Dr. W. S. Rankin, Raleigh, N. C.; Dr. K. P. B. Bonner, Morehead City, N. C.

Committee on Single Examining Board.

Chairman—Dr. J. F. Highsmith, Fayetteville, N. C.; Dr. J. P. Munroe, Charlotte, N. C.; Dr. H. H. Newman, Salisbury, N. C.; Dr. E. T. Dickinson, Wilson, N. C.; Dr. H. A. Royster, Raleigh, N. C.

Board of Medical Examiners of the State of North Carolina.

President—Dr. John Q. Myers, Charlotte, N. C.; Secretary, Dr. Hubert A. Royster, Raleigh, N. C.; Dr. J. F. Highsmith, Fayetteville, N. C.; Dr. E. G. Moore, Elm City, N. C.; Dr. M. L. Stevens, Asheville, N. C.; Dr. Isaac M. Taylor, Morganton, N. C.; Dr. John G. Blount, Washington, N. C. (deceased).

North Carolina State Board of Health.

President—Dr. J. Howell Way, Waynesville, N. C.; Secretary-Treasurer—Dr. W. S. Rankin, Raleigh, N. C.; Dr. Richard H. Lewis, Raleigh, N. C.; Col. J. L. Ludlow, Winston-Salem, N. C.; Dr. A. J. Crowell, Charlotte, N. C.; Dr. Thomas E. Anderson, Statesville, N. C.; Dr. Charles O.'H. Laughinghouse, Greenville, N. C.; Dr. E. J. Tucker, Roxboro, N. C.; Dr. F. R. Harris, Henderson, N. C.; Dr. Cyrus Thompson, Jacksonville, N. C.

State Board of Examiners for Nurses.

President—Miss Julia Libby, R. N., Charlotte, N. C.; Dr. C. F. Strosnider, Goldsboro, N. C.; Miss Lois Toomer, R. N., Wilmington, N. C.; Miss Maria P. Allen, Morganton, N. C.; Dr. Thompson Fraser, Asheville, N. C.

On Local Arrangement.

Dr. B. J. Witherspoon, Chairman Committee on Arrangements.

Entertainment Committee.

Dr. J. Q. Myers, Chairman; Dr. J. E. S. Davidson, Dr. R. L. Leinbach, Dr. Oren Moore, Dr. C. S. McLaughlin, Dr. W. W. Pharr, Dr. R. Z. Querry.

General Reception Committee.

Mecklenburg County Medical Society.

Railroad Reception Committee.

Dr. William Allan, Chairman; Dr. L. M. Fetner, Dr. L. C. Todd, Dr. Alonzo Myers, Dr. R. M. Gallant.

Ladies' Reception Committee.

Mrs. I. W. Faison, Chairman; Mrs. J. Q. Myers, Mrs. W. O. Nisbet, Mrs. Charles Strong, Mrs. A. J. Crowell, Mrs. A. M. Whisnant, Mrs. J. R. Alexander, Mrs. B. J. Witherspoon.

Hotel Committee.

Jr. John Q. Myers, Chairman.

Rates—Selwyn ..... $2.00 per day and up
Mecklenburg ..... 1.50 per day and up
Central ..... 1.00 per day and up
Stonewall ..... 1.50 per day and up
Piedmont ..... 1.50 per day and up

Finance Committee.

Dr. J. R. Alexander, Chairman; Dr. P. M. King, Dr. A. M. Whisnant.

Reception and Entertainment for Ladies.

Reception Charlotte Country Club, 4:00 p. m., Tuesday.

Keith's Vaudeville, Wednesday evening.

Auto ride to different parts of the city from Masonic Temple, 4:00 p. m.

General Reception, Masonic Temple, 9:00 p. m., Tuesday.

Registration in the foyer of the Masonic Temple, first floor, Mr. A. W. Snow in charge.

Reporters for meeting—Mrs. S. W. Summers, Raleigh, N. C.; Miss Mary Robinson, Raleign, N. C.

If you have not paid your dues in the Medical Society of the State of North Carolina for 1920, see Mr. A. W. Snow at the registration desk.

The following counties had not paid dues for their members when this program went to press, March 29th:

Buncombe, Burke, Chowan-Perquimans, Columbus, Craven, Currituck, Davie, Gaston, Haywood, Iredell-Alexander, Lenoir, Macon-Clay, Montgomery, New Hanover, Richmond, Rockingham, Scotland, Swain, Transylvania, Yadkin.

GENERAL SESSIONS PROGRAM

Tuesday, April 20, 9:00 A. M.

Opening Exercises.

First Floor, Masonic Temple.

Call to Order—Dr. B. J. Witherspoon, Chairman Committee on Arrangements, Charlotte, N. C.

Invocation—Dr. Bunyan McLeod, Westminster Presbyterian Church, Charlotte, N. C.

Welcome to the City of Charlotte—Hon. F. R. McNinch, Mayor, Charlotte, N. C.

Welcome to Mecklenburg County—Hon. Cameron Morrison, Charlotte, N. C.

Welcome from Mecklenburg County Medical Society, Dr. C. M. Strong, President, Charlotte, N. C.

Response—Dr. Thompson Fraser, Asheville, N. C.

President's Address—Dr. C. V. Reynolds, Asheville, N. C.

Report of Committee on Arrangements.

Announcements.

Continue in this room with the Section on Public Health and Education.

Tuesday, April 20, 2:30 P. M.

Third Floor, Masonic Temple.

Meeting of House Delegates.

Subsequent meetings at same place; time fixed by House of Delegates.

Tuesday, April 20, 8:00 P. M.

First Floor, Masonic Temple.

Pneumoperitoneum as a New Roentgen Diagnostic Procedure (with lantern slides), Dr. Fred M. Hodges, Richmond, Va.

Report of Obituary Committee—Dr. Arch Cheatham, Chairman, Durham, N. C.; Dr. E. G. Moore, Elm City, N. C.; Dr. F. R. Harris, Henderson, N. C.; Dr. N. D. Bitting, Durham, N. C.; Dr. B. O. Edwards, Asheville, N. C.

Wednesday, April 21, 11:15 A. M.

First Floor, Masonic Temple.

Nominations for seven vacancies on the Board of Medical Examiners.

Wednesday, April 21, 12:00 M.

First Floor, Masonic Temple.

Conjoint session of the Medical Society of the State of North Carolina and the North Carolina State Board of Health.

Members of the State Board of Health.

President, Dr. J. Howell Way, Waynesville, N. C.

Dr. Richard H. Lewis, Raleigh, N. C.

Col. J. L. Ludlow, C. E., Winston-Salem, N. C.

Dr. Thomas E. Anderson, Statesville, N. C.

Dr. Chas. O'H. Laughinghouse, Greenville, N. C.

Dr. F. R. Harris, Henderson, N. C.

Dr. Cyrus Thompson, Jacksonville, N. C.

Dr. A. J. Crowell, Charlotte, N. C.

Dr. E. J. Tucker, Roxboro, N. C.

Executive Staff of the State Board of Health.

Secretary-Treasurer—Dr. W. S. Rankin, Raleigh, N. C.

Director Public Health Education—Mr. R. B. Wilson, Raleigh, N. C.

Director of Bureau of Tuberculosis—Dr. L. B. McBrayer, Sanatorium, N. C.

Director of Bureau of Medical Inspection of Schools—Dr. G. M. Cooper, Raleigh, N. C.

Director of Bureau of Public Health Nursing and Infant Hygiene—Miss Rose M. Ehrenfield, R. N., Raleigh, N. C.

Deputy State Registrar and Epidemiologist—Dr. F. M. Register, Raleigh, N. C.

Director of Bureau of County Health Work—Dr. K. E. Miller, Raleigh, N. C.

Director of Bureau of Inspection and Sanitary Engineering—Mr. W. E. Miller, Raleigh, N. C.

Director of Bureau of Venereal Diseases—Dr. Millard Knowlton, Raleigh, N. C.

Director of State Laboratory of Hygiene—Dr. C. A. Shore, Raleigh, N. C.

Order of Business.

Report of work accomplished and recommendations.

Discussion.
New Business.
Adjournment.

Wednesday, April 21, 2:00 P. M.

First Floor, Masonic Temple.

Balloting for seven members of the Board of Medical Examiners of the State of North Carolina. Vote for seven different names.

Program of the Section on Medicine as per schedule, will be continued in this room as soon as the ballots are taken up.

Wednesday, April 21, 8:00 P. M.

First Floor, Masonic Temple.

New Conceptions Relative to the Treatment of Malignant Disease and some other Refractory Pathological Conditions (illustrated by lantern slides)—Dr. William L. Clark, Philadelphia, Pa.

State Medicine—Dr. W. S. Rankin, President of the American Public Health Association, Raleigh, N. C.

Thursday, April 22, 11:00 A. M.

First Floor, Masonic Temple.

Report of House of Delegates.
Installation of Officers.
Resolutions.
Adjournment.

Section of Public Health and Education.

Dr. C. C. Henderson, Chairman,
Charlotte, N. C.

(City Health Officer, Richmond, Va.)

(This section must be finished by the close of the Tuesday afternoon session.)

Tuesday, April 20, 11:00 A. M.

First Floor, Masonic Temple.

1—Medical Needs of a Modern Community—Dr. A. McR. Crouch, Wilmington, N. C.

2—An Ideal Nursing Organization—Miss G. E. Reynolds, R. N., Charlotte, N. C.

3—(a) The Importance of a City Tuberculosis Sanatorium;
(b) City Abattoir and Meat Inspection—Dr. R. L. Carlton, Winston-Salem, N. C.

4—Remedial Conditions in School Children—Dr. Margery J. Lord, Asheville, N. C.

5—The State Plan for Securing Medical and Dental Care of School Children—Dr. George M. Cooper, Raleigh, N. C.

6—Our Tuberculosis Problems—Dr. B. O. Edwards, Asheville, N. C.

7—Some of the Things Necessary to Banish Tuberculosis from our Commonwealth—Dr. James E. Brooks, Blowing Rock, N. C.

8—The Proper Education of Tuberculous Patients while in a Sanatorium—Dr. Benj. K. Hays, Oxford, N. C. (National Tuberculosis Association, 381 Fourth Ave., New York City).

9—Symposium on Venereal Diseases:
(a) Venereal Diseases a Public Problem—Dr. Millard Knowlton, Raeligh, N. C.
(b) The State Venereal Disease Campaign Dr. Millard Knowlton, Raeligh, N. C.
(c) Ideal Venereal Disease Clinic—Dr. S. Raymond Thompson, Charlotte, N. C.
(d) The Importance of Laboratory Facilities for Venereal Disease Clinic—Dr. L. C. Todd, Charlotte, N. C.
(e) Gonorrheal Complications as Related to Infectivity—Dr. A. F. Toole, Asheville, N. C.
(f) The Diagnosis and Treatment of Syphilis, its Incidence and Treatment—Dr. Joseph A. Elliott, Charlotte, N. C.
(h) The Treatment of Gonorrhoea in the Female—Drs. James A. Keiger and A. B. Greenwood, Raleigh, N. C.
(i) The Importance of Proper Treatment in Acute Gonorrhea—Dr. A. McR. Crouch, Wilmington, N. C.

Discussion opened by Dr. Udo J. Wile, of University of Michigan (by invitation).

Section of Surgery.

Dr. E. B. Glenn. Chairman,
Asheville, N. C.

Tuesday, April 20, 11:00 A. M.

Third Floor, Masonic Temple.

This section must be finished by the close of the Tuesday afternoon session.

1—Acute Pancreatis. Suggesting Acute Intestinal Obstruction—Dr. E. B. Glenn, Asheville, N. C.

2—Saving Suppurating Wounds—Dr. H. A. Royster. Raleigh, N. C.

3—Goiter: Observations drawn from 216 cases (Lantern slides)—Dr. Addison G. Brenizer, Charlotte. N. C.

4—Imbrication Operation for Inguinal Hernia; 200 cases Operated: Steps in Operation (Lantern slides)—Dr. J. T. Burrus, High Point. N. C.

5—Some Difficulties Encountered in Gall-Bladder Surgery—Dr. J. W. Tinkersley, Greensboro, N. C.

6—Prostate Toxemia—Dr. Albert D. Parrott, Kinston, N. C.

7—Management of Carcinoma of the Stomach—Dr. T. M. West, Fayetteville, N. C.

8—The Treatment of Infected Bone Cavities—Drs. D. W. and Ernest Bullock, Wilmington, N. C.

9—Closure of the Abdominal Wall—Dr. Henry F. Long, Statesville. N. C.

10—Hypertrophis Stenosis of the Pylorus—Dr. E. T. Dickinson, Wilson, N. C.

11—The End Results of 100 Cases of Uterus—Dr. J. . Williams, Greensboro, N. C.

12—Subphrenic Abscess—Dr. G. W. Pressley, Charlotte, N. C.

13—Ascariasis as a Surgical Complication—Dr. Henry Norris, Rutherfordton, N. C.

14—The Surgeon and Roentgenology (Lantern slides)—Dr. Robert H. Lafferty, Charlotte, N. C.

15—A Troublesome Complication of Gonorrhoea, Its Treatment—Dr. Hamilton W. McKay, Charlotte, N. C.

16—Treatment of Skull Injuries by the Ordinary Surgeon—Dr. C. M. Strong, Charlotte. N. C.

17—Flat Feet—Dr. Alonzo Myers, Charlotte, N. C.

18—Drainage—Dr. W. O. Spencer, Winston-Salem, N. C.

Tusday, April 20, 2:30 P: M.
Third Floor, Masonic Temple.
Section on Surgery.
(Continuing.)

Tuesday, April 20, 2:30 P. M.
First Floor, Masonic Temple.
Section on Public Health and Education.
(Continuing.)

Section on Eye, Ear, Nose and Throat.

Dr. C. W. Banner, Chairman,
Greensboro, N. C.

Tuesday, April 20, 2:20 P. M.

Third Floor, Masonic Temple.

1—Some Deductions from a Series of 200 Tonsilectomies—Dr. T. W. Davis, Winston-Salem, N. C.

2—Report of 100 Cases of Tonsilectomy under Local and General Anaesthesia—Dr. L. L. Simmons, Greensboro, N. C.

3—Query: What Constitutes Good Tonsil Surgery? Dr. John W. MacConnell, Davidson, N. C.

4—Title unannounced—Dr. S. Dace McPherson, Durham, N. C.

5—Title unannounced — Dr. J. G. Murphy, Wilmington, N. C.

6—Relation of Public Health Work to the Business Interest of the Specialists of North Carolina—Dr. G. M. Cooper, Raleigh, N. C.

7—Title unannounced—Dr. John Hill Tucker, Charlotte, N. C.

8—The Relative Value of Transillumination and X-Rry, in Diagnosing Diseases of the Nasal Accessory Sinuses, with Description of the Author's Method of Transilluminating the Maxillary Sinus (Lantern slides)—Dr. H. H. Briggs, Asheville, N. C.

Section on Gynecology and Obstetrics.

Dr. J. M. Manning, Chairman,
Durham, N. C.

Wednesday, April 21, 9:00 A. M.

Third Floor, Masonic Temple.

1—Some Phases of Obstetrics—Dr. J. M. Manning, Durham, N. C.

2—Subject unannounced—Dr. Foy Roberson, Durham, N. C.

3—Cesaerean Section—Dr. C. A. Woodard, Wilson, N. C.

4—Subject unannounced—Dr. J. L. Nicholson, Washington, N. C.

No section meetings after 11:15 a. m. today, Wednesday, as nominations for members of Board of Medical Examiners will be called at this hour.

Section on Pediatrics.

Dr. J. Buren Sidbury, Chairman,
Wilmington, N. C.

Wednesday, April 21, 9:00 A. M.

Third Floor, Masonic Temple.

1—The Importance of the Eearly Recognition of Intra and Extra-dural Hemorrhage in the New-born—Dr. J. Buren Sidbury, Wilmington, N. C.

2—Focal Hemorrhagic Encephalitis; Report of a Case with Transfusion—Dr. A. S. Root, Raleigh, N. C.

3—Inturbation of the Larynx for Membraneous Croup—Dr. L. T. Royster, Norfolk, Va.

4—Acidosis—Dr. L. W. Elias, Asheville, N. C.

5—Infection of the New-born—Dr. Yates W. Faison, Charlotte, N. C.

6—Simplified Infant Feeding—Dr. Frank Howard Richardson, Brooklyn, N. Y.

7—A Discussion of the Use of Purgatives in Infants—Dr. D. L. Smith, Saluda, N. C.

8—Diabetes Millitis in Childhood—Dr. R. M. Pollitzer, Charleston, S. C.

9—Skin Tests with Foreign Porteins—Dr. Horace M. Baker, Lumberton, N. C.

No section meetings after 11:15 a. m. today, Wednesday, as nominations for members of Board of Medical Examiners will be called at this hour.

Section on Practice of Medicine.

Dr. Hubert B. Haywood, Jr., Chairman,
Raleigh, N. C.

Wednesday, April 21, 9:00 A. M.

First Floor, Masonic Temple.

(This section will adjourn promptly at 11:15 a. m. for the nomination of seven members of the Board of Medical Examiners. It will reconvene in the same room at 2:40 p. m., immediately after the ballots are taken up. This section must be finsihed at the Wednesday afternoon session.)

1—Specifics in Medicine—Dr. Frederic M. Hanes, Winston-Salem, N. C.

2—A Study of Different Types of Bright's Disease: The Importance of their Eearly Recognition—Dr. Wm. deB. MacNider, Chapel Hill, N. C.

4—X-Ray Findings in the Lung, Following Influenza, Tuberculosis and Otherwise—Dr. Robert P. Noble, Raleigh, N. C.

5—Hyperthyroidism and Tuberculosis: Studies on the Use of the Goetsch Test—Dr. R. A. McBrayer, Sanatorium, N. C.

6—Essential Hypertension—Dr. R. F. Leinbach, Charlotte, N. C.

7—Syphilis vs. Rheumatism and Neurasthenia, with Report of Illustrative Cases—Dr. J. Allison Hodges, Richmond, Va.

8—Mechanism of Convulsive Movements of the Face and the Manner of their Removal—Dr. Tom A. Williams, Washington, D. C.

9—Anemia: Report of a Case Treated by transfusions—Dr. K. C. Moore, Wilson, N. C.

10—Arterial Tension and its Clinical Manifestations—Dr. Charles H. Pette, Warrenton, N. C.

11—The Significance of Abnormal Blood Pressure—Dr. J. T. J. Battle, Greensboro, N. C.

12—Some Facts, Old and New, Concerning the Pulse and Heart—Dr. Hubert B. Haywood, Jr., Raleigh, N. C.

13—Toxic Arthalgia, with the Teeth, Tonsils and Stomach as Etiologic Factors—Dr. O. Edwin Finch, Apex, N. C.

14—Symptomatology of Typhoid Fever—Dr. P. R. Hardee, Stem, N. C.

15—Eventration of the Diaphragm—Dr. Wm. Allan, Charlotte, N. C.

16—Report of a Headache Cure—Dr. John H. Tucker, Charlotte, N. C.

17—Syringohyelia, with Report of a Typical Case—Drs. J. P. Munroe and A. A. Barron, Charlotte, N. C.

Section on Chemistry, Materia Medica and Therapeitics.

Dr. Charles S. Mangum, Chairman,
Chapel Hill, S. C.

Thursday, April 22, 9:00 A. M.

First Floor, Masonic Temple.

1—Food Values from the Standpoint of the Vitamine Content—Prof. W. A. Withers, Department of Chemistry, North Carolina State College, Raleigh, N. C.

2—The Problem of Food Values—Dr. W. P. Horton, North Wilkesboro, N. C.

3—Different Forms of Food Adulteration—Mr. W. M. Allen, Food and Ool Chemist, State Department of Agriculture, Raleigh, N. C.

4—The Chemistry of the Blood in Nephritis—Dr. W. M. Copridge, Durham, N. C.

5—Treatment of Amoebic Infections—Dr. Wm. Allan, Charlotte, N. C.

6—The Modern Therapeutic Value of Digitalis—Dr. Jos. A. Speed, Durham, N. C.

7—X-Ray and Radium Treatment of Skin Affections—Dr. W. D. James, Hamlet, N. C.

Section of Anatomy, Physiology, Pathology and Bacteriology.

Dr. H. P. Barrett, Chairman,
Sharlotte, N. C.

Illness prevented Dr. Barrett from taking care of the program for his section.

NORTH CAROLINA HEALTH OFFICERS' ASSOCIATION.

Tenth Annual Session.

Monday, April 19, 1920.

First Floor, Masonic Temple.

Dr. E. F. Long, President, Lexington, N. C.
Dr. C. V. Reynolds, Vice-President, Asheville, N. C.
Dr. G. M. Cooper, Secretary-Treasurer, Raleigh, N. C.

PROGRAM

9:30 A. M.

1—Prayer, Rev. A. A. McGeachy, D. D., Charlotte, N. C.

2—President's Annual Address: Co-ordination of Health Work — Intra-governmental and Extra-governmental, Dr. E. F. Long, Lexington, N. C.

3—Report of Secretary-Treasurer.

4—Appointment of—
(a) Auditing Committee.
(b) Committee on Resolutions.
(c) Other Committees.

Symposium on Economic Value of Public Health Work.

1—Relative Values on Health Problems—Dr. Charles V. Chapin, Providence, R. I.

2—Relative Values and Financial Equivalents in Communicable Disease Control—Dr. J. S. Mitchener, Edenton, N. C.

Discussion: To be limited to specific features of the problem outlined in the above article, as follows:

Case Reporting — Dr. F. M. Register, Raleigh, N. C.

Measles and Whooping Cough—Dr. C. E. Lowe, Wilmington, N. C.

Diphtheria and Scarlet Fever—Dr. E. R. Hardin, Lumberton, N. C.

Smallpox and Chickenpox—Dr. Wm. M. Jones, Greensboro, N. C.

Typhoid and Other Filth-borne Diseases —Dr. C. W. Armstrong, Salisbury, N. C.

3—Relative Values and Financial Equivalents in Tuberculosis Prevention Wark—Dr. L. B. McBrayer, Sanatorium, N. C.

Discussion: Dr. A. C. Bulla, Winston-Salem, and Prof. L. M. McCormick, Asheville, N. C.

4—Relative Values and Financial Equivalents in Relation to Degenerative Diseases—Dr. L. J. Smith, Wilson, N. C.

Discussion: Dr. E. F. Long, Lexington, N. C.; Dr. E. T. Hollingsworth, Clinton, N. C.

5—Financial Equivalents of Soil Pollution Prevention Work—Mr. H. E. Miller, C. E., Raleigh, N. C.

Discussion: Dr. A. J. Warren, Charlotte, and Dr. P. J. Chester, Greenville, N. C.

1—Ppblic Health Nursing as Related to County Health Work—Miss Rose M. Ehrenfeld, R. N., Raleigh, N. C.

2—One Nurse to a County Without a Health Department—Mrs. Mildred Hargrave, Randolph County P. H. N., Asheboro, N. C.

3—Some Results Obtained by a County Public Health Nurse—Miss Clara B. Ross, Edgecombe County Health Department, Tarboro, N. C.

Discussion: Miss Martha C. Newman, R. N., Wilson, N. C.; Miss Elizabeth Reynolds, R. N., Charlotte, N. C.; Miss Metta Owen, R. N., Fayetteville, N. C.; Mrs. M. V. Wilburn, R. N., Newton, N. C.

8:30 P. M.

1—Publicity as a Means of Promoting Efficiency in Health Work—Dr. R. L. Carlton, City Health Officer, Winston-Salem, N. C.

2—Summary of Reports from the Counties—Dr. George M. Cooper, Raleigh, N. C.

3—Some Important Topics—Dr. W. S. Rankin, President, merican Public Health Association, Raleigh, N. C.

4—Discussion.

5—Reports of Committees.

6—Adoption of Resolutions.

7—Election of Officers.

8—Adjournment.

Note: No paper shall exceed fifteen minutes, no discussion be longer than five minutes and no one allowed on the floor more than one time during a session (By-Laws).

Exception: The President's address and invited guests from outside the state.

NORTH CAROLINA HOSPITAL ASSOCIATION

Second Annual Session

Monday, April 19, 1920.
10:30 A. M.

Third Floor, Masonic Temple.

President—John P. Munroe, Charlotte.
Vice-President—Dr. J. T. Burrus, High Point.
Vice-President—Dr. E. T. Dickinson, Wilson.
Vice-President—Miss E. A. Kelly, R. N., Fayville.
Secretary-Treasurer — Dr. John Q. Myers, Charlotte.

PROGRAM.

10:30 A. M.

Calling meeting to order by President, Dr. John P. Munroe, Charlotte.
Prayer by Rev. Luther Little, D. D., Pastor First Baptist Church, Charlotte.
Address of Welcome—Hon. Frank R. McNinch, Mayor of Charlotte.
Response—Dr. John T. Burrus, High Point.
1—President's Address.
2—The Standardization of Hospitals in North Carolina—Dr. J. F. Highsmith, Fayetteville.
3—The Importance of Standardization of Our Hospitals—Dr. John T. Burrus, High Point.
4—Training School Problems in the Hospitals of North Carolina—Miss Edith M. Redwine, R. N., Monroe.
5—Administration of the One-Hundred Bed Hospital—Miss E. Mildred Davis, R. N., Tarboro, N. C.; Miss E. A. Kelly, Fayetteville, N. C.
6—The Demand and Supply for Local Hospital Facilities—Dr. E. T. Dickinson, Wilson, N. C.
7—"Psychology" of Food—Dr. L. B. McBrayer, Sanatorium, N. C.

Book Notices

Famous Leaders of Industry.

The life story of boys who have succeeded.—By Edwin Wildman, editor of "The Forum," author of "Reconstructing America — Our Next Big Job," "Aguinaldo, A Narrative of Philippine Aspirations," etc. Published by The Page Company, Boston.

Underlying all success there are certain fundamental and inviolable principles and whether the boy succeeds in the field of medicine, industry, art, big business or what not these principles are the same.

The author of this collection of biographies has presented in most readable form the individual and personal characteristics of these successful men, so that you feel you know them personally and know the traits that made them famously successful.

No doctor is so old he may not profit by the study of other men—no doctor is so young and no doctor's son is so good but that the reading of this book will inspire their lives with a determination to DO in this world of action the things that will really count.

"The Boy Scouts of the Wolf Patrol," by Brewer Corcoran. Published by The Page Company, Boston, 330 pages, illustrated.

A very interesting story of fiction that will interest and help all boys between the ages of 10 and 90.

It is published with the sanction of the "Boy Scouts of America" and is well worth the reading.

Many years ago there lived in the north of England a man notorious for his wealth, his extreme parsimony and the great difficulty which people found in collecting their bills from him. One day his wife fell sick. After delaying the matter as long as he could, he was obliged to call a physician.

"Will you ever pay me?" asked the doctor.

"I will give you my note," said the man; "and, furthermore," said he, "I will make the note payable 'kill or cure.' The lady died. The note became due, overdue, and, after many months of patient waiting, the doctor brought suit. The justice scanned the note, found it exact and perfect in detail, and asked the defendant if he knew of any reason why judgment should not be rendered against him. The old man arose and said that he had no attorney to represent him, for the reason he didn't think it necessary; that he only wanted to ask the plaintiff two questions. The court agreeing, he said to the doctor: "Did you cure my wife?"

"No," said the doctor, "that was impossible."

"Did you kill her?"

ORAL DISINFECTION.

The prevalence of infections of the oral and pharyngeal cavities leads to an inquiry into the most reliable methods of prophylaxis. Under normal conditions numerous micro-organisms have their habitat in these cavities without causing disease of the host. A lowered vitality or decreased resistance, possibly, is responsible for a relative increase in virulence of some of the bacteria, and an infection results. Acute follicular tonsilitis, streptococcae infection, diphtheria, Vincent's angina and other pathological states follow and may lead to serious illness, with the possibility of a large variety of complications or sequelae. While all infections are not preventable, the ratio of incidence of bacterial invasion of the mouth and throat may be greatly reduced through attention to oral hygiene.

The essence of prevention is cleanliness. Beginning with a more or less in less than an hour after the accident. measures of a bactericidal nature are indicated. The agency employed must be germicidal but free from danger to normal mucous membranes. The disinfectant action of Dioxogen, combined with its other properties, recommend it as a practical hygienic medicament for use in the oral and pharyngeal cavities, though it is equally serviceable for intranasal application. Its freedom from poisonous qualities or deleterious effects has established it in the forefront of preventive disinfecting agencies. Its more extensive use as a gargle, spray or local application would result in a higher degree of protection against many of the disease states whose source of infection is regarded as oral or nasal. As an ideal antiseptic and germicide for the nose, mouth and throat it affords a simple, convenient, effective and absolutely safe means of prophylaxis against the pathogenic organisms prone to attack through the nose, mouth or throat.

EARLY MARRIAGE.

The danger of childlessness in delayed marriages is emphasized by Arthur E. Giles in his recent book, "Sterility in Women." It is particularly pertinent because of a tendency among American feminists to encourage girls to postpone marriage.

Dr. Giles cites J. Matthew Duncan's observations "that those married at ages from 20 to 24, inclusive, are almost all fertile; and that after that age sterility gradually increases according to the greater age at time of marriage."

"The truth of Duncan's contentions has never ,so far as I know, been questioned," Dr. Giles remarks.

It may be added that they have been abundantly supported by other investigations, which have shown that childbearing at a relatively early age is more favorable both to the mother and to the child.

"Unfortunately," Dr. Giles concludes, "early marriages are not prevented alone by want of means; but are discouraged by a too prevalent preference for a life of ease, luxury and pleasure; and, further, among those who marry young there is a too prevalent desire to shirk the responsibilities of parentage, and to postpone its possibility. Frequently, after several years of married life, lived 'for pleasure,' the desire for children awakes, only to met by an inexorable 'too late.' "

(Soc. Hyg. Bul., March 20.)

During the last few weeks, one of the departments of Armour & Company, Chicago, noticed that large quantities of their Salad Oil, under the Veribest Brand, were being purchased by druggists throughout the country to such an extent that this department investigated and found that the oil was being used for dispensing as sweet oil; also in the making of creams, lotions and similar preparations.

Salad Oil is one of the purest products made, being manufactured entirely from cotton seed and highly refined. It has a mild, sweet flavor and of light amber color. Perhaps the increased cost of olive oil may have had something to do with the adoption of cotton seed oil.

This Salad Oil is now refined by a process vastly superior to the methods adopted some years ago. We understand that this oil is smokeless at a temperature of 510 degrees and that during one of the final tests, one of these vials was buried in cracked ice and salt for five hours and when removed, it was absolutely clear.

It is quite probable that the expense of olive oil, linseed oil and other oils may cause successful experiments with cotton seed oil in industries, arts and sciences.

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These are the results you seek—**and these are the results you get!**

The thousands of medical men who have used Gray's Tonic during and after influenza, this past winter know how true this is.

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When the lactic treatment is suggested, think of **B. B. CULTURE.**

Samples and literature on request.

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YONKERS, N. Y.

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To call and make our place your headquarters while in Charlotte. We especially want you to enjoy the music our Instruments produce and take great pride in playing the latest Records on the Pathe Phonographs. We also handle the following Pianos and Player Pianos, Hallet & Davis, Chase Bros., and Conway.

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Not only the Mecklenburg Medical Society, but all of CHARLOTTE BIDS YOU WELCOME. We want you to have a good time as well as a profitable meeting at this convention. When you can spare a moments time we advise that you stop into the Music Store of MACINESS and SAIN and hear some good music. They will greet you with a smile and give you you a seat were you can really rest—physicially and mentally.

The Public Health Department of Norfolk, Va., is making plans for carrying on of health relief work in that city in a most progressive and ideal way. While many cities have been leaning toward the establishment of and operating a Public Health Center, where all clinical, social welfare and health relief work can be unified, none has carried the project out so extensively as Norfolk is planning to do.

The Charlotte Medical Journal

VOL. LXXXI CHARLOTTE, N. C., MAY, 1920. No. 5

SOUTH AMERICAN SURGEONS.*

Official Visit to Peru, Chile, Argentine, and Uruguay in Behalf of the American College of Surgeons, by Dr. William J. Mayo, President, and Dr. Franklin H. Martin, Secretary-General.

By. Franklin H. Martin, M.D., F.A.C.S.

I. INTRODUCTORY

Since the inception of the American College of Surgeons, its organizers have had in mind that the College should become comprehensively American, eventually including in its Fellowship all worthy surgeons of the American continents.

During 1914 and 1915 a preliminary correspondence with the surgeons of South America was entered into by the office of the College, under the guidance of a special Spanish-speaking secretary, who conducted the correspondence in Spanish. This was undertaken as a precursor of a visit that was to be made in the winter of 1915-1916. The European War, which was threatening the usefulness and safety of the shipping routes of the Western Hemisphere, coupled with our own interest in the conflict, compelled us to postpone further thought of an immediate visit to the southern continent.

Upon the signing of the armistice, it became apparent that, with the educational institutions of Europe disorganized and European travel discouraged, this time was particularly opportune for the revival of our plans to visit the surgeons of the various countries of our own South America.

The suggestion came almost simultaneously from our President, Dr. W. J. Mayo, and other members of the Board of Regents of the College, and with an assurance on the part of the President that he personally would make the trip, our correspondence was hurriedly revived, travel arrangements promptly made, and January 7 set as the time for our departure.

On December 20, the Secretary-General laid the tentative plans before the Board of Regents, and they were received with hearty approval. As a preliminary, committees of surgeons in Peru, Chile, Argentine, and Uruguay were selected, and we communicated to the individual members of each committee the object of our contemplated visit, informing them at the same time of the approximate time of our arrival. The following extract from this correspondence will reveal more definitely our plans:

. . . The principal object of our tour is to enlist the interest of the surgical profession of your countries in the American College of Surgeons, with the idea of ultimately extending to the surgeons of South America an invitation to become Fellows of the College. . . . Could you arrange to have a small group of from five to ten of your surgeons meet with us at the time of our visit to discuss our problem? Fellowship in the American College of Surgeons is open to all general surgeons and surgical specialists. . . . Therefore, in selecting the group for the preliminary conference, you may take into consideration these specialties. . . .

At our conference we would suggest that the following matters should be considered:

"1. As a means of promoting a closer affiliation between the professions of the South and North American continents, will the surgeons of your country desire to become Fellows of the American College of Surgeons on an equal basis with the surgeons of North America?

"2. Should you favor such affiliation, will you have prepared in advance and furnish to us at our conference a carefully selected list of the eminent surgeons of your country who, because of their standing in the profession, should be recommended for Fellowship in the College without examination?

"3. Will you be prepared to suggest to us at the conference a plan that will aid in bringing about a closer relationship between the surgeons of your country and the surgeons of the United States and Canada?"

In order that you may become familiar with the organization of the American College of Surgeons and may have some knowledge of the personnel of its officers and Fellows, we are mailing you a copy of our directory. . . .

Upon viséing our passports, the several South American consuls imparted to their respective ambassadors in Washington information in reference to our contemplated visit. The Pan American Union in Washington secured facts regarding our plans and proceeded to make the occasion the subject of diplomatic correspondence.

Before leaving New York, the presi-

*American College of Surgeons. Published with permission of Dr. Martin.

dent and secretary-general of the College received letters from Mr. Lansing, Secretary of State, commending our proposed trip and informing us that he had communicated concerning the subject with the United States ambassadors in the capitals of the countries included in our itinerary.

Letters were also received from the ambassadors to the United States from Peru, Chile, Argentine, and Uruguay, stating that they had cabled to their respective governments the facts concerning our contemplated mission.

On January 7 the president and the secretary-general of the College, with their wives, sailed from New York on the S.S. "Ebro," an 8,000-ton steel ship flying the British flag. The itinerery included Jamaica, Panama, Peru, Chile, Argentine, and Uruguay.

From the standpoint of the surgeon, the trip had interest in the medical schools, the hospitals, and the operating surgeons of the four countries of this southern continent that we were privileged to visit. The short time at our disposal and the difficulties of transportation made it impossible for us to include Brazil and the several other South American countries. However, visits to these countries will be undertaken as soon as proper arrangements can be made. This trip, undertaken as a purely professional one in behalf of the American College of Surgeons, cannot be properly described without relating some of the unusual personal experiences we enjoyed.

II. THE VOYAGE

It is an ordinary experience to board an ocean liner and be deposited in one week in Liverpool or Cherbourg. It is, however, an unusual experience for a North American to board a commodious steamer for a long sea voyage of six weeks to our southern continent. Especially is it unusual when one leaves Rochester, Minnesota, and Chicago in January, with the temperature ranging from zero to ten degrees below, with the necessity for winter garments, and finds oneself three days out of New York in the warm Gulf Stream, with the tropics in anticipation, and summer clothing in demand.

We sailed from New York on January 7, and anchored in Valparaiso harbor on February 1. With a few intervening stops at interesting ports, this represented the first arm of the sea voyage which may be summarized by the one word "ideal." At no time was there a sea of sufficient roughness to cause one the slightest discomfort. The sun shone almost continuously, and there was but one rainfall, and that in the small hours of the morning when the ship's voyagers were asleep. After passing Cape Hatteras the temperature on shore or ship was at no time above 85° F. or lower than 50°. It was possible to sit on deck at all times with light wraps or none at all, and, fanned by a cool breeze that was always present, read a book, dream over a cigar, or while away the time enjoying the companionship of old friends or those newly made, and at any time supply the inner man with the good things which were afforded by the well-equipped ship which was sailing a sea that was always "wet." The climate for six long weeks was like the most perfect June day in Chicago, when a gentle breeze is blowing from off the lake. Considering these ideal weather conditions, and our splendid boat with canvas canopies over the broad decks, with much space in which to exercise, with comfortable chairs, with music in the lounge, with a well-stocked smoking room, with salt and fresh baths, with a swimmipng pool, and, to cap all, with comfortable beds and the unusual, clean, plain table of a well-conducted English ship, supplemented by strange fruits from tropical parts, one would have to be especially difficult to please if he could not find here contentment and satisfaction. It must become the overworked and the tired man's paradise.

III. THE CONTINENT

The Conquest of Peru has left in the minds of civilization a romantic impression of South America which fits well one's imagination during a visit to the whole continent. I believe one of the great charms of South America lies in its barren shore line and the occasional oasis in the form of an important seaport. From Panama, where the second break of the trip occurs, Kingston being the first, there is a two days' sail due south without a sight of land, and on the third day one comes abreast of the great promontory of Equador, and from there to Valparaiso he is in constant sight of the dry, brown coast range of mountains, with an occasional glimpse of the snow-capped second and more important range. The first stop south of Panama was at the port for

Lima—Callao. The Pacific is so undisturbed and calm that the ships anchor in the open sea and transport their passengers to the dock by row boats or little launches, loading and discharging their cargoes from lighters. Eight miles from Callao, which is a flat little seaport town of about four thousand inhabintants, and connected with it by a broad boulevard and by trolley, is the capital of Peru—Lima. This city and its seaport are typical of all seaport towns on the western coast, as far south as Valparaiso. The mountains surrounding the coast are absolutely barren of foliage; rain is almost unknown; and the sun-dried mountains have crumbled, and everywhere at their base, except where the sea washes, is a long, straight line of deep brown dust that constantly sifts down from above.

Lima is typical of the nearby inland cities. They are always the source of water supply and are real oases in sterile rock, mountain-bound valleys. These valleys "bloom like the rose" as soon as water is turned into them. Growing in the dust-covered earth are royal palms, fruit-bearing trees of all kinds, and a wealth of foliage and tropical flowers. Every house has its patio and each is the central attraction of the habitation. And so with Arica and its inland oasis city—Tacna; also Antofagasta, Valparaiso, and Santiago.

From Valparaiso we traversed the continent and landed at the metropolis of South America—Buenos Aires, and made the last reach by viewing the Atlantic Ocean at Montevideo. It is no small experience for the traveler who is familiar with the Trans-Andean route to make it again and again, and how much more eventful it is for one traversing it for the first time. An unusual ride from the scenic standpoint is the first arm of the journey to Los Andes, Chile, an oasis city. The climax is reached, however, in the climb by cog railroad to the top of the Andes, penetrating by a two-mile tunnel a lofty final obstruction, the road reaching a height of 10,470 feet, with the highest peaks of the two continents towering in grandeur, snow-capped, far above the dizzy height. Then the descent on the Argentine side to Mendoza, the center of the grape-growing province. Finally, one enters a special train of sleepers and diners on the broad guage road, which takes the traveler across the broad pampas, which are covered with a wealth of wheat, corn and grazing cattle and sheep, and conveys him to Buenos Aires. An overnight ride on a comfortable steamer of palatial equipment completes the trip to Montevideo.

In this continental journey one traverses two proud republics and enters a third. In crossing the first, Chile, he enters two cities of importance and travels among the foothills of a mighty mountain range, with deep valleys and raging torrents of rivers, and appreciates the interest that is excited by a new civilization in a strange land, and all the picturesqueness of an Alpine scene. This develops finally into the grandeur of the Canadian Rockies, as one crosses the divide, and there is revealed Aconcagua, the premier peak of the continent, with its worthy satellites. Then one begins the descent, picking one's way over almost impossible abysses on a roadbed that is the pride of engineers of international fame; and at last a great empire of agriculture that reminds one of the plains of the Dakotas, Montana, Minnesota, and Illinois, arriving at a metropolis that brings to mind Rome and Paris rolled into one, which houses a people who are proud of their great country and know how to welcome the stranger.

IV. OUR WELCOME

We did not have to wait until we reached South America to feel the warm handclasp of welcome. Standing on the dock at Colon was our friend, and the official Sanitary Officer of the Canal Zone, Colonel H. C. Fisher. We last knew him in the Surgeon General's office in Washington during the strenuous days of the war. He was in uniform, appearing almost boyish in his white helmet, and his face was good to look upon. We dined with him that evening, together with our wives, meeting at dinner other friends of war time—Colonel Greenleaf, Sanitary Officer of Panama; and Colonel Hess, in charge of the Government Hospital at Balboa. Afterward at a reception we met the principal members of the medical fraternity of this little Republic. We were particularly interested in the inspection of the City of Panama the next day, under the guidance of Dr. Braithwaite.

On anchoring at Callao, the port of Lima, our ship was soon beseiged by launches, and in one of the first was

Antonio Grana, Esq., a business man of Lima, who came to pay his respects to Dr. Mayo. His launch was followed by another with a group of Lima surgeons, representing the Sociedad de Cirugia del Peru. We were informed by Drs. Aljovin, Grana, Gastaneta, Denegri, and Macedo of the committee that we were to take automobiles from Callao to Lima, and become the guests of the Society at the Hotel Maury during our three days' stay at Lima. The eight-mile trip by motor along the sea boulevard was most enjoyable, as it gave us the first shore glimpse of this rainless country. Our days were full, the intervals between conducting the business of our mission being crowded by hospitable attentions which were accorded to us by the surgeons of Lima and Callao, the government of Peru, and our own United States representatives residing there. Before disembarking, we were welcomed by our American Consul and the Chargé d'Affaires, representing the American Embassy, who bore invitations for us to visit the Minister of Foreign Affairs and the President of the Republic that afternoon. Dr. Guillermo Gastaneta was our host at luncheon at the Botanical Gardens that day, and a group of surgeons of Lima were additional guests.

At four o'clock, Mr. William Walker Smith, the Chargeé d'Affaires, visited us and we made official calls upon the Minister of Foreign Affairs, and afterward on the President of the Republic. The palace of the President was built by Pizarro in about 1540, and occupied by him as his official residence. While waiting we were shown the spot where Pizarro was assassinated, and were then conducted by relays of red-coated officials to the executive apartments. There we were met by the secretary, who took us into the audience chamber where the President greeted us. He is an attractive, vivacious man of rather small stature who speaks English perfectly, and we were soon engaged in an animated discussion of our mutual friend, Major General William C. Gorgas. The President reminded me of our own Secretary of War, Mr. Baker—the same keen, intellectual type of man.

That evening Dr. Juvenal Denegri, president of the surgical society, gave an official dinner that was attended by about sixty men and women. This was an elaborate banquet given at the Botanical Gardens, and it was an affair that emphasized the exquisite taste of these delightful people. An address directed to the President of the College, Dr. Mayo, was read by Dr. Denegri. Dr. Mayo formally responded. This occasion added to the cordiality of our reception and stamped it as official. The next day we, together with the ladies of our party, were entertained by Professor Miguel C. Aljovin at a luncheon at his home, the first luncheon in which an attempt was made to give us Peruvian dishes exclusively. The dining room opened onto a patio filled with flowers, growing palms and cages of highly-colored birds who vied with a native mandolin orchestra playing Peruvian airs. Here we succeeded in getting the home atmosphere of the people of Lima. The next day Dr. Denegri entertained us at luncheon at the Union Club, and in the evening we were the guests of Antonio Grana, Esq., at a dinner at his interesting residence. In the afternoon we attended a garden party at the American Embassy given by Mr. and Mrs. William Walker Smith. There are many memories that will frequently hark back to our visit in Lima. The unobtrusive but continuous hospitality of these people, with their cosmopolitan ways and cultivated minds, is something that we can never forget. Our welcome was not by any means wholly official, as there was much that was personal, because of the affection that many Peruvians have for our chief, Dr. Mayo. Not until we had been deposited on our ship, loaded with fruits and other dainties, and our adieus had been said, did we realize to the full the friendships that we had made.

And this was but the beginning of entertainments that continued wherever we touched the continent, and at all times on our land trips. Even at the small ports we were greeted by officials and physicians. At Arica we had been prepared by a wireless from our American Consul to meet the Governor of the Province, the intendente, Mr. Edwards, of Tacna. At Arica a special coach awaited us, consisting of an enclosed body built on a Ford auto, with flanged wheels that traversed the railroad. We were conveyed to it by the Consul, Mr. Cameron; the Governor; and Dr. Tomes Aravena, of Arica. The invitation included Dr. and Mrs. Mayo, and Dr. and Mrs. Martin. On arriving at Tacna we were greeted by Mr. Edwards, the

intendente, Mr. Eliot, the English Consul, and two physicians. Our luncheon in the palace of the intendente, with his wife, four daughters and a son, and guests, was one of the most interesting experiences of our trip. We viewed the beautiful gardens afterward, and then were taken by Mr. Eliot to inspect a new hospital of which he has every reason to be proud. This city of Tacna is thirty miles from the sea, at an altitude of 1,800 feet, and is an oasis with a population of ten thousand.

At Antofagasta and Iquique we were carefully looked after, at the latter port by Dr. J. E. Villalon Diaz and Dr. German Aliago, both local surgeons of renown; and at the former city, Antofagasta, by Dr. W. F. Shaw, an American stationed at the copper mines at Chuquicamata, the captan of the post, and Dr. A. Arturo Pemjean. We were shown the clean city, inspected a hospital and were entertained at luncheon in a large public garden.

At Valparaiso the first launch brought a distinguished group of men who had come to greet us, pay their respects, and take us to the dock. They were lined up and we were introduced to Dr. Edwyn P. Reed; Dr. Vincenti Daguino, Vina del Mar, president of the medical society of Valparaiso; Dr. Gaston Lachaise, secretary of the medical society of Valparaiso; Dr. R. de la Fuente, Dr. Alberto Adriasola, and Dr. Prain, of Valparaiso; Professor Correo Pardo, Professor José Ducci, Dr. Luis Vargas, and Dr. Juan de Diaz, of Santiago. Our stay at this port was short, but we visited the town, and before taking our Trans-Andean train at noon we had refreshments at the Naval Club with Dr. Adriasola, Surgeon General of the Chilean Navy, as our host. In ten days we returned to this city in the special Pullman that the government had furnished us and were literally carried away by the committee of surgeons which had greeted us on our arrival in port.

At Vinar del Mar, a suburb of Valparaiso, they intercepted us and conveyed us in automobiles to a tropical garden where, in the shade of enormous trees, a wonderful banquet table was spread. A large oval canopy was stretched overhead, and in the background were the American, English, and Chilean flags. The entertainers were headed by Dr. Vincenti Daguino, who made us a formal address which was responded to briefly by Dr. Mayo, Dr. Martin, Dr. Reed, Dr. Muenich, Dr. Avarosus, and Dr. Adriasola. Then our hospitable friends conducted us to our dock and by special launch took us to our ship which had been awaiting us for two weeks.

At Buenos Aires we were greeted both officially and medically. Reporters boarded our train about an hour out of the city. On alighting at the station we were immediately greeted by Mr. Welles, representing the American Ambassador, who formally conveyed that official's greetings to us. Then appeared a delegation of doctors from the Faculty of Medicine. General introductions were indulged in. Heading the group were Dr. Marcelino Herrera Vegas, Dr. Marcelo T. Vinas, Dr. Pedro Chutro, and Dr. José Arce. After much flashlight photographing on the part of a battery of newspaper men, we were conveyed to the Plaza. There for two hours in the corridor of the hotel we held an informal reception and met many of the physicians and surgeons of Buenos Aires.

There was much for us to see and accomplish in this metropolis, and our professional and official entertainments were many and most interesting. The first day, after inspecting hospitals, we were "breakfasted" at the Jockey Club, where we were especially distinguished by having large goblets of actual ice water served in honor of Dr. Mayo. The luncheon was much appreciated as our hosts had been our guides during the morning. The Jockey Club is the pride of this city, and is not surpassed anywhere. It reminded us of Paris, New York, or London.

At noon we paid our respects to the American Ambassador, Mr. Frederic Jesup Stimson, a Boston man of the type of Senator Lodge, but much younger. Our greeting was most cordial and we had an enjoyable call, conducted without interpreters. We were invited to tea for Sunday afternoon.

Dr. Chutro took us on a unique trip in the afternoon to El Tigre. This is a freak of nature of La Plata which converts a large area of land adjacent to it into many islands by offshoots which resemble artifical canals. These islands are covered with summer residences and luxuriant fruit orchards.

Saturday was enjoyed with an excursion by automobile as guests of Dr. Vegas to his hacienda, or landed es-

tate. It consists of 45 square miles of agricultural territory lying about half way between Buenos Aires and La Plata. We were accompanied by Dr. Cranwell and his daughter, and Dr. Pasman and his brother. This is one of the largest and most attractive landed estates in Argentine. This day's visit to Dr. Vegas' estate, which is one of the side interests of this remarkable surgeon, is worthy of a separate chapter. However, our day was not completed until we motored on to LaPlata. On the way we could fix in our minds a few commercial facts regarding this estate, on which there are one hundred thousand cattle, two hundred thousand sheep, and other animals in proportion, and on which is raised quantities of grain, corn, and produce.

On reaching LaPlata we were the guests of the president of the Universidad Normal de LaPlata. We breakfasted in one of the corridors of the university. The professor of anatomy, Dr. Pedro Belou, made an address in Spanish to which we responded in English. We were then driven about the beautiful but deserted city of LaPlata and returned to Buenos Aires by motor. It was a distinguished group that we met that evening at dinner at the American embassy. One of the interesting men we met on this occasion was the intendente of Buenos Aires. On Sunday another estate was visited by Dr. and Mrs. Mayo and Mrs. Martin as the guests of Dr. Pasman and Dr. Cranwell. They were entertained at luncheon, and then taken to the races, which are the most attractive Sunday diversion of these people. Later they took tea at the American embassy.

Montevideo welcomed us with open arms. A letter from our ambassador, Mr. Robert Jeffrey, in Montevideo, to our ambassador in Buenos Aires had given us advance information to the effect that a committee from the faculty om medicine would welcome us. Accordingly, when the gang plank of our steamer connected us with the dock at Montevideo, the first to come over it was a committee headed by the ambassador, Mr. Jeffery. The committee of surgeons and physicians consisted of Dr. Enrique Pouey, Dr. Gerardo Arrizabalaga, Dr. Horacio Garcia Lagos (who speaks English fluently), Dr. Alfredo Navarro, Dr. A. Ricaldoni, dean of the faculty of medicine; Dr. Lorenzo, Dr. Carlos A. Belliure, Dr. Alfonso Lamas, and Dr. Julio Nin y Silva. General introductions were in order, after which we filed onto the upper deck and were duly photographed by newspaper men.

We were then driven to Montevideo where we inspected the medical school, accompanied by about 75 members of the faculty and students. Later we drove about the city and were shown with pride the new sea boulevard which is named for President Wilson. After transacting some business, we were taken to the Parque Hotel where we lunched with a group of government officials and medical men. The luncheon was an elaborate one served in the great dining room of the hotel, in which a large number of other people were being served, including a luncheon party given by Mrs. Jeffery for the ladies of our party. At the end of the feast the president of the faculty read an address to the guests which was translated into English by Dr. Ernesto Dowling. Dr. Mayo responded, followed by Dr. Martin. These two talks were, in turn, translated into Spanish. Mr. Jeffery arranged an interview for us with the minister of foreign affairs in the afternoon. We were very graciously received, and the minister expressed genuine good will toward our country. He reminded us that Uruguay had followed us into the great war because Uruguay looks upon the United States as its protector against foreign aggression, and when the United States feels compelled to enter European wars, Uruguay automatically follows. Hence she broke diplomatic relations with Germany immediately after our declaration of war. He regretted very much that the President of the Republic was away for the day, and he conveyed to us the President's regrets. The importance of our visit from the point of view of the government may be judged by the fact that this minister, corresponding to our secretary of war, was at the ship that night to see us off. Greater cordiality that we received could not have been extended to anyone in the short time we had to spend in Montevideo.

The next morning we were met by many of our friends at Beunos Aires, in spite of the fact that we had but a few minutes to spend in transferring from the Montevideo boat to our trans-continental train. We arrived in Los Andes, Chile, the following evening. At this

point we were to change from the narrow gauge Andean train to the normal gauge Chilean train. The Governor called to inform us that he had instructions from his government in Santiago to look after our comfort and to attach to our train a special Pullman coach for the use of our party while in Chile. He then introduced us to the transportation chief who he said would accompany us. This was most welcome news as our party was much fatigued after the exciting journey. Fortunately the coach accommodated more than our immediate party, and we shared it with our other American fellow travelers.

At nine o'clock the next morning we were met at the Hotel Savoy in Santiago by a committee of local surgeons. Heading the delegation were Professor Gregorio Amunategui, Dr. Jose Ducci, secretary of the faculty of medicine; Dr. Correa Pardo, Dr. Victor Koerner, Dr. Francisco Navarro, and Dr. Jerman Valenzuela. We were whisked off to an inspection of hospitals and medical schools and ended up at the home of Professor Amunategui for a luncheon which was given by himself and his wife for our ladies and a number of medical men, including also our ambassador, Mr. Joseph H. Shea. This was another enjoyable luncheon of the formal type that was made unusually pleasant by its family character. Dr. Amunategui is another of the cultured type of Spanish gentleman that wins one's heart by his genial hospitality and his genuine cordiality. In the evening the members of the faculty of medicine and their wives gave a large dinner for us in the restaurant on the famous island mountain, Cerro de Santa Lucia. This was a fitting finish for our official visit to this capital.

The next day we boarded our special train and were accompanied to Valparaiso by a brother of Dr. Lucas Sierra, the latter being in Europe, and Dr. José Ducci. We said goodbye to our friends who had gathered at the station to see us off and started for the coast. The final curtain was rung down on our entertainments when we again reached Lima on our return. A wireless had been received by us asking that we become the guests at a luncheon at a seaside resort between Callao and Lima, and witness a bull fight the following day, Sunday and Washington's birthday. We felt that this would be a fitting climax to a continental trip of two surgeons.

The pace had been a fast one. We reached Lima on January 22. Our official visit to South America, occupying just one month, was ended. From our previous landing here until our escort left us at six o'clock on February 22, we had been in the hands of committees, civil and governmental, that had kindly but persistently entertained us. We had visited Lima, Santiago, Valparaiso, Buenos Aires, and Montevideo, and had crossed the continent twice from ocean to ocean. No company or commission has ever been entertained more royally, more dignifiedly, or more hospitably. At every station we were shown attentions that indicated that our own government had neglected no opportunity to impress upon our hosts the importance of our mission, and the governments of the countries that we visited were not slow in responding. Mr. William Walker Smith at Lima, Mr. Joseph H. Shea at Santiago, Mr. Frederic Jesup Stimson at Buenos Aires, and Mr. Robert Jeffery at Montevideo, our ambassadors and envoys, had neglected nothing which emphasized the importance of our visit. And, best of all, what can we say of the entertainment that we received from the surgeons of South America on our own account? It has been a proud month to the writer of this sketch to see our president and chief, Dr. Mayo, honored everywhere and always. No conquering hero has ever been accorded more royal treatment. "Mayo" has become a household word in four countries where before it was only known by reputation. This visit we hope will be the foundation for the establishment of a more personal friendship between the professions of our two continents.

V. MEDICAL SCHOOLS

We visited medical schools connected with the national universities at Lima, Santiago, Buenos Aires, and Montevideo. A primary, high-school, and university education is required by the medical schools for the admission of students. Peru, Chile, and Argentine require a seven-year course of medicine, while Uruguay requires but six. So far as we could judge them in our cursory visit, the physical properties of each of these four schools were adequate and modern in every detail. Judging from the provision for free hospital beds in so many of the hospitals of the cities in which the schools are situated, which

are under the control of the faculties, the clinical material should be abundant. The laws of each of the governments provide for a reasonable distribution of dissecting materials, and postmortems are an accepted requirement. Our opportunity for meeting a strong group of each faculty was most favorable, and if the faculty as a whole approaches in point of ability the members with whom we became acquainted, the faculties are exceptionally strong. While it was vacation time and the medical schools were not operating at full capacity, we had an opportunity of observing and meeting a large number of students and a larger number of recent graduates who were serving as internes in the hospitals, and I am sure we were agreed that in appearance they compared favorably with those of the United States, Canada, and England.

The leaders of the faculties are men who have supplemented their home training by study in France, Germany, or other foreign countries, while a few have been in the United States. One cannot but realize that these medical schools are built on sound, fundamental bases. However, it was not possible for us in a short visit during the summer vacation season to judge of their present teaching value.

VI. HOSPITALS

The hospitals in South America, not unlike the hospitals in other civilized portions of the world, may be divided into several classes. One of the objects of our trip was to obtain a bird's-eye view of the hospitals in the cities we visited. We passed through, very hurriedly of course, a number of the principal hospitals in each of the capitals, and Valparaiso and a few other cities. With only minor exceptions, they all had suitable buildings and interiors, and opened onto extensive and attractive gardens or patios. Without exception, I believe all of them have a system of case records, and the average of completeness in this respect was above that found in the United States. Everywhere working laboratories, including X-ray outfits, were in evidence and were pointed to with pride. The operating rooms, with but few exceptions, were modern, and contained the most approved sterilizing apparatus. Conveniences for diagnostic purposes, and instruments for operating rooms were in abundance. Nearly all had provision for postmortems, and up-to-date morgues. The provision for graduate internes seemed to be adequate, especially in those hospitals connected with teaching institutions. Nearly all of the large hospitals had rather complete outdoor dispensary departments. Some of the hospitals were deficient in modern plumbing. However, a large percentage of the important hospitals were elaborately equipped with these conveniences. Some had the most approved hydrotherapeutic departments, and modern laundries and kitchens were in evidence in nearly all of the larger institutions. The hospitals which did not have the full equipment as enumerated above were not a few, but nearly all of these are in line for a rapid readjustment. Especially is this true since their teachers are thoroughly alive to the requirements of a modern hospital.

Two defects which were evident in nearly all of the hospitals visited and which appealed to us as rather easy to remedy were the lack of screening against flies, mosquitoes, and other insects, and a well organized system of nursing. The former of these will soon be remedied, and the latter is a difficult problem with which the faculties are wrestling. It was not a defect pointed out by us, but was freely admitted by our hosts.

The Modelo Instituto Clinica in Buenos Aires may well be taken as a model for all hospitals built in a climate such as Argentine's. It is one of the most beautiful from the standpoint of architecture and grounds, and its equipment, as far as we could judge, with the exception of the nursing organization, is complete in every detail. It was built as a model by the government of Argentine, and is maintained as such, which fact evidences the yearning of the people and the profession of this country for the best that can be devised. This hospital is also completely screened.

VII. THE SURGEONS

Peru. The Sociedad de Cirugia del Peru is of recent origin, and was established along the lines of the successful societies of the United States and Europe. The organizers have had the courage of their convictions, and have carefully selected their members. They have built themselves an attractive home in which to meet, to house their literature, and to entertain the stranger.

The membership is limited to surgical specialists, and its members do not yet number twenty.

Nowhere in the world, I am sure, can the modern surgeon find himself more at home than among the surgeons of Peru; they are all men of the highest type; they are educated and possess the culture that comes from travel and study abroad, and they are conversant with at least one language besides their own. Nearly all of them speak French, a large percentage some English, and many of them converse with ease in the English tongue.

When we consider the personnel of these hosts of ours immediately come to mind the following: Dr. Miguel C. Aljovin, surgeon of the Maison de Santé, honorary member of the Faculty of Medicine; Dr. Constantino J. Carvallo, professor of descriptive anatomy; Dr. Juvenal Denegri, professor of otology, rhinology and laryngology, surgeon to Santa Ana Hospital; Dr. Guillermo Gastaneta, professor of clinical surgery, surgeons to Dos de Mayo Hospital; Dr. Francisco Grana, professor of surgical pathology, surgeon to Guadalupe Hospital; Dr. Carlos Morales Macedo, professor of applied anatomy, surgeon to Guadalupe Hospital; Dr. Carlos Villaran, professor of clinical surgery, and surgeon to Military Hospital; Dr. Mariano Alcedan; Dr. Constantino T. Carvallo, professor of gynecology; Dr. Manuel J. Costaneda, surgeon to Italian Hospital; Dr. Enrique Febrea Odriozola, professor of obstetrics; Dr. Juan J. Mostajo, surgeon to Italian Hospital; Dr. Ricardo Palma, instructor of anatomy of the Faculty of Medicine; Dr. Ricardo Pazos Varela, professor of genito-urinary surgery, surgeon to Dos de Mayo Hospital; Dr. Luis de la Puente, surgeon to Maison de Santé, honorary member of the Faculty of Medicine; Dr. Belisario Sosa Artola, professor of syphilis and skin diseases, surgeon to Bellavista Hospital.

Santiago. We have already spoken of our reception at Valparaiso and of our entertainment by the surgeons of Santiago. We found a genuine desire on the part of our committee of surgeons here to co-operate and to become affiliated in the work of the American College of Surgeons. We could not have had a more influential chairman than Dr. Gregorio Amunategui, and in our formal meeting we had the services of a young medical man as interpreter, although nearly all of the Chileans understand some English. Besides the chairman, the following surgeons were discussed and recommended for our consideration: Dr. David Benavente, Dr. Marcos Donoso, Dr. Liva Eujenio Diaz, Dr. Carlos Charlin, Dr. Victor Koerner, Dr. Eduardo Moore, Dr. Olejandro Mujica, Dr. Francisco Navarro, Dr. Correa Canpolican Pardo, Dr. Emilio Petit, Dr. Alejandro del Rio, Dr. Lucas Sierra, Dr. Jerman Valenzuela, Dr. S. Luis Vargas, Dr. Wall Jeronimo Alvarado, Dr. Silvano Sepulveda, Dr. Alberto Adriasola, Dr. Luis Obalos, and Dr. Guillermo Muenich.

Valparaiso. It was considered desirable to consult committees in the two large cities of Chile, and accordingly we also met in conference with a selected group of surgeons in Valparaiso. We had already spent a pleasant forenoon with the members of this distinguished committee and looked forward to our conference with a great deal of pleasure. Our meeting was held in a beautiful garden in one of the favorite summer resorts near Valparaiso. The occasion was quite formal and Dr. Alberto Adriasola, the chairman, read an address and modestly suggested a few names of surgeons whom they recommended for Fellowship in the College. Among those suggested were many men whom we had already met. Including his own name, these consisted of Dr. Guillermo Muenich, who, with Dr. Adriasola, had been recommended by the Santiago committee, Dr. Silvano Sepulveda, Dr. Frederico Englebach, Dr. Roberto Montt, Dr. Rudecindo de la Fuente, Dr. Juan Thierry, Dr. Miguel Manriquez, Dr. Ernesto Iturieta, and Dr. Gaston Lachaise.

There seems to be the most cordial co-operation between the surgeons of these two Chilean cities. The surgeons of this country, like the leading men everywhere in South America, are of the broadest type. Their European travel and their familiarity with several languages besides their own, gives them a breadth of vision that is frequently lacking in many of our surgeons who are provincial in spite of the very bigness of their country.

Buenos Aires. On Friday, February 6, we met the committee of surgeons of Argentine which was interested in our mission in behalf of the College of Sur-

geons. In the conference were Drs. Vegas, Cranwell, Chutro, and Palma. Buenos Aires has a strong body of surgeons and surgical specialists. A modern city of a million and a half inhabitants, of necessity, would possess such a group. There are also a number of strong provinces of Argentine with cities of considerable importance. These, too, have their surgeons of quality. Our interview and discussion revealed the fact that the surgeons of this Republic are desirous of affiliating in the most cordial manner with the surgeons of the North American continent.

They submitted a list that they felt they could unreservedly recommend to the College. They also suggest a committee that would from time to time make further recommendations and pass on applications which naturally would come independent of them. It was gratifying to note the seriousness with which this group of men accepted responsibility. It is not an exaggeration to say that it would be difficult to find a group of surgeons in any capital of Europe or America which would excel those of this list.

Montevideo. We have dwelt upon the hospitality displayed by the profession of this important and interesting city. Our official greeting here was of the most cordial nature. The committee called a meeting in the amphitheater of the new hospital and we had the pleasure of meeting several members of the Faculty of Medicine who were not surgeons. The object of our visit was reviewed by Dr. Martin and interpreted by Dr. Lagos, and then amplified by Dr. Mayo.

We have met in the surgeons of South America men of outstanding influence. There is something about their appreciation of worth that makes the man of education, culture, and professional ability the natural leader. Is it because of their world vision, brought about by their knowlledge of foreign languages, their supplementary education in other lands, their love of general literature and the classics, and their dread of narrow provincialism?

MANAGEMENT OF WAR HYSTERIA.

Dr. Tom A. Williams, Washington, D. C.

Nearly ten per cent of evacuations are due to hysteria. Most cases can be restored immediately if skillfully met; differentiation to be made from cerebral commotion and from chronic emotivity. A wound does not prevent hysteria. Indeed, it affords a powerful suggestion toward military incapacity besides being a painful focus inhibiting movement and inducing contracture. Cardiac fatigue often suggests the long continued incapacity which may manifest itself as an effort syndrome.

Successful therapy must count upon the psychological mechanism of each patient. But the physician must not only understand, but must exercise a dynamic volition which will compel the patient to use the effort demanded. A special clinic facilitates the doctor's task, as it brings to bear upon the patients a massive counter suggestion. Relapses are to be prevented only when the army in general comprehends the principles of suggestion, collective and individual.

The inert man must be differently treated to the determined man; the former is easier to cure but more difficult to keep well. In neither case, however, is it wise that coercion predominate. An active motive and desire to return to duty must be the doctor's aim. In a majority of cases collective suggestion is an important feature of treatment, but in a more complex case individual analysis is essential.

The methods most generally and successfully used have been:

1. Straight suggestion in the early stages at the front.

2. Indirect suggestion and persuasion, often combined with torpillage or other uncomfortable application, or by isolation.

3. Best of all, however, a metamorphosis of the patient's mental attitude by re-educative procedure as well as col-

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Note—Read to Neurological Section of American Medical Association. Published in the Military Surgeon, Nov., 1919. See also forthcoming book, "Disorders of the Nervous System in Warfare."

lective suggestion.

Both principles and methods are the same as those used by the author before the war with civilian patients, as described in J. A. M. A. 1912, and Ill. Med. Journal 1914, etc.

THE USE OF DRY MILK IN INFANT FEEDING.*

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While dry or powdered milk has been used for a number of years as a component part of certain proprietary foods in this country, the value of dry milk per se has only within recent years been recognized and used upon an extensive scale.

It seems strange, in view of the fact that dry milk has been employed in infant feeding for seven or eight years in France, that so valuable a product as this has been overlooked for such a long time in this country.

Its present extensive use is no doubt due in a large measure to the splendid results which were obtained by our American pediatric units in saving the lives of infants and children in war-stricken France and Belgium.

There are several brands of dry milk on the market—these differing from each other in the process of manufacture and in the proportions of fat, sugar, proteids and inorganic salts which they contain.

The two used most extensively are "The Dryco Dry Milk," manufactured by the Dry Milk Company of New York, and "Klim" dry milk, made by Merrell-Soule Company of Syracuse, N. Y.

Considering each of these briefly: Dryco dry milk is made by spraying partly skimmed cows' milk over hot revolving sylinders, where it is quickly dried into flakes, then ground up into a fine powder and placed in cans for commercial use. No other constituent is added to the milk. The powdered milk contains 12% fat, milk sugar 44%, proteid 34% and salts 7%.

When one part of this is added to seven parts of water, or in the proportion of one level tablespoonful to an ounce of water, the mixture contains 1½% fat, 5½% sugar and 4% proteid. The food value per ounce of this mixture is equivalent to sixteen calories—that is, each level tablespoonful of dry milk contains sixteen calories.

Method of Administration: In order to determine how much Dryco dry milk is required by a given infant, it is necessary to weigh the baby and from this weight the amount to be given in 24 hours is calculated.

In case of infants of normal, or slightly below normal weight, their caloric needs are satisfied by giving 2½ level tablespoonsful of dry milk to each pound of body weight in the 24 hours. For instance—a baby three months old, weighing 11 pounds, is to be fed upon Dryco dry milk. He requires (11x2½), 27½ level tablespoonsful in the 24 hours. Assume that he is fed every 3 hours for 7 feedings. He is therefore to receive 4 level tablespoonsful of dry milk per feeding in the proper amount of water—the case cited, about 4 ounces.

Very poorly nourished infants will require more food—probably 3 level tablespoonsful for each pound of body weight.

The preparation of the milk is very simple: the prescribed amount of water per feeding is brought to boiling, then taken from the stove and into the hot water is stirred the prescribed amount of dry milk; then the mixture cooled to about body heat and given—each feeding being freshly made.

It will be observed from the formula of Dryco dry milk that the fat is relatively low, the sugar not quite high enough, and the protein relatively high.

The general effect of giving this milk is to produce constipation and a urine high in ammonia, which often "scalds" the thighs and buttocks of the child. This latter can be obviated by increasing the calories of the mixture by adding sufficient sugar or starchy preparations to bring the percentage of carbohydrates up to 6 or 6½%. For instance, in a feeding of 8 level tablespoonsful of Dryco dry milk to 8 ounces of water, one level teaspoonful of sugar to the feeding will increase the sugar in the formula to 6½%. Barley water can frequently be used as the diluent to advantage in children 8 months of age and older.

The same general rule applies to beginning dry milk feedings with an infant as is applied to the use of any kind

*Read before the Wilson County Medical Society, April 7th, 1920. Submitted for publication April 10th, 1920.

of feeding, i. e., beginning with an amount smaller than is actually required and working the baby's tolerance up to the point where he can digest and assimilate a mixture which will fulfill the caloric requirements and enable him to gain in weight. There is no rule as to this, but one-third to one-half the amount required should usually be given at first and the amount rapidly increased according to the child's tolerance.

One of the great advantages of dry milk—as shown by Dr. Alfred Hess of New York—is that it not only does not produce scurvy, but that it actually cures it. He attributes this to the fact that there is but little aging of the cows' milk before it goes through the quick drying process, and hence the vitamines are not destroyed.

Mammala dry milk is essentially the same as Dryco dry milk except that milk sugar has been added. It contains 12% fat, 54% milk sugar, 24% proteids and 5% mineral salts. When one level tablespoonful to the ounce of water is added, the mixture contains 1.5% fat, 6.7% sugar and 3% proteid, with a caloric value of sixteen to the ounce.

Klim Whole Dry Milk is made by placing whole cows' milk into a steel chamber and forcing it under pressure through a pin point opening. The spray of finenly divided milk is received into a warm chamber through which are blowing currens of air and it is thus dried as it descends.

Two preparations of Klim dry milk are on the market—the skimmed and the whole dry milk. The analysis of the former shows it to contain 1.35% fat, 50% milk sugar, 38% proteid and 8% mineral salts. One level tablespoonful of this added to an ounce of water gives 1.8% fat, 7% sugar and 5% proteid—one ounce of this containing 20 calories. Klim whole milk powder contains 28% fat, 38% sugar, 26% proteid and 5% inorganic salts.

When whole Klim milk is mixed in the proportion of 1 level tablespoonful to the ounce of water (1 part to 7 of water) the formula is almost exactly that of whole cows' milk—3.5% fat, 4.7% sugar and 3.3% proteid, with a caloric value of 20 to the ounce.

This whole milk, therefore, has the advantage of having a higher percentage of fat than the other kinds and of being susceptible to modifications for young infants so that the formula of mothers' milk can be more nearly approximated.

Most normal babies when placed upon cows' milk (not dry milk) formulae do well upon simple modifications with water and sugar. Generally speaking, equal parts of cows' milk and water at 3 months of age, 2 parts of cows' milk and 1 of water at 6 months of age, and 3 parts of milk and 1 of water at 9 months, with sufficient sugar added in each formula to make 6 or 6½% will suffice to produce a normal gain in weight.

Klim whole dry milk can easily be old receiving 4 ounces for 7 feedings in the 24 hours—or 28 ounces—would be modified to correspond to these dilutions. For instance, a baby 3 months given 14 level tablespoonfuls of this milk to the 28 ounces of water (equal parts of whole milk and water). An infant 6 months old requiring 36 ounces in the 24 hours would receive 24 level tablespoonfuls of dry milk in the 36 ounces of water to correspond to a dilution of two parts of cows' milk and one of water. As stated before, some form of sugar must be added—an amount sufficient to increase the percentage of sugar to 6 or 6½. Two level tablespoonfuls of Klim whole milk for each pound of body weight will fulfill the caloric requirements. The preparation for use of Klim milk differs from that of Dryco milk in that the 24 hour quantity is made up at one time—the Klim milk being floated upon the prescribed amount of water which has been boiled and **cooled** and then being whipped in by means of an egg whip. Most babies will gain satisfactorily up to four or five months of age when fed upon Dryco dry milk, but at this age often their weight comes to a standstill because of the low fat content of the product. At this point modifications of whole Klim milk should be substituted.

We have then in dry milk a product which is free from harmful bacteria, is available in both urban and rural sections, which will keep fresh for a long period in a cool place, which is easily and quickly prepared for use, which is in itself an antiscorbutic, and upon which most infants will thrive and make a normal gain in weight.

The question arises—to what extent may we substitute dry milk for raw, pasteurized or boiled cows' milk in infant feeding?

I am not yet willing to agree with those physicians who would unreservedly prescribe dry milk in preference to cows' milk, but I recognize its great value in many types of feeding cases and of gastro-intestinal disorders.

Dry milk formulae cannot be adjusted to meet the needs of all feeding cases, especially of those infants who show a proteid intolerance, and it therefore cannot be made to take the place of cream-skimmed milk and sugar mixtures where the proteid can be reduced to as small an amount as is desired.

These are the indications for the use of dry milk, as I see them: It should be used in—(1) All cases where a good, clean supply of fresh cows' milk is not available. This pertains particularly to rural sections, where the farmer does not own his own cow, where the milk cannot be kept on ice, or where the insanitary condition contra-indicates the use of cows' milk. If the baby is normal, modifications of Klim whole milk to correspond to the child's age and weight are preferable here.

(2) In all cases of fermental diarrhea, where lactic acid milk is not available or cannot be made.

The Dryco dry milk is preferable here, since the sugar content is not high and the relatively high amount of protein decomposing in the intestinal tract forms an alkaline product which tends to neutralize the fatty acids resulting from the intestinal fermentation.

(3) As an intermediary food between lactic acid or Eiweiss milk and cows' milk in cases of infectious diarrhea. In these cases it is better to use Dryco dry milk.

(4) In cases of premature infants where breast milk is not available. The proteid in dry milk, having been broken up finely by the process of making, is much more readily digested by these infants than is the proteid of non-dried cows' milk.

(5) In cases of fat intolerance—vomiting, acid stools, and fat curds or free fat in the stools and failure to gain. Here again Dryco milk is prescribed.

(6) In cases following the operation for pyloric stenosis where breast milk is unobtainable.

(7) In cases where traveling or visiting away from home is undertaken—in which event modified Klim whole milk would be in order.

201 N. Wilmington Street.

HYDRONEPHROSIS.

By A. J. Crowell, M. D., F. A. C. S.
Of The Crowell Urological Clinir,
Charlotte, N. C.

The mechanics of simple hydronephrosis apparently carry sufficient complexity to defy a clear and satisfactory explanation. The differences noted in the production of hydronephrosis by complete, partial or intermittent obstruction are complicated by the various changes occurring in the course of any one type of obstruction.

The causes of hydronephrosis are many. The so-called simple hydronephrosis is always the result of a prolonged but incomplete obstruction to the outflow of urine,—without infection,—from the pelvis of the kidney.

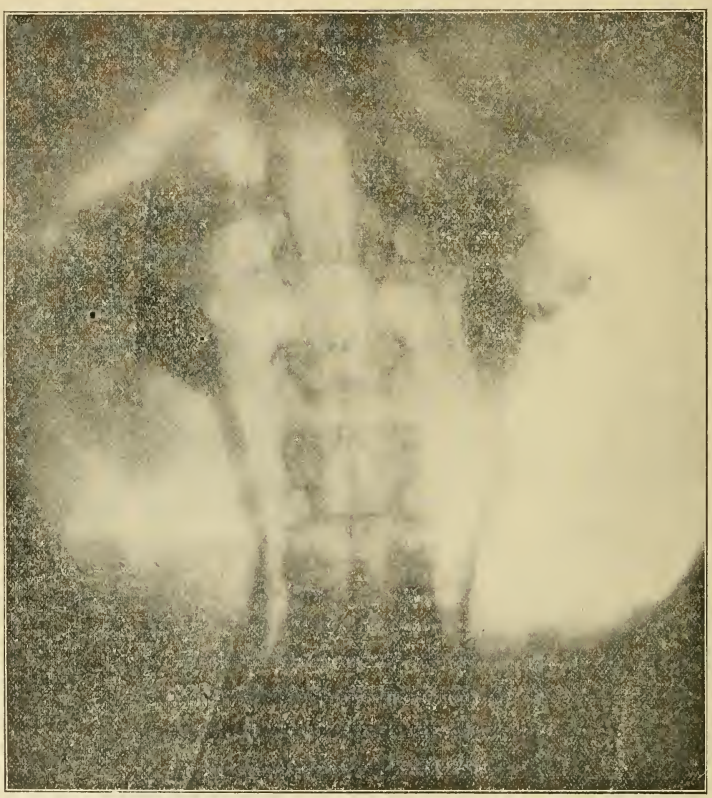
Kink at Uretero-Pelvic Junction. Partial Obstruction, Causing Hydronephrosis.

Hydronephrosis Due to Nephroptosis.

We agree with Drs. Gerahty and Frontz in that one of the most frequent causes of so-called primary hydronephrosis is an inflammatory contraction at the uretero-pelvic junction but we do not concur with them in the belief that a more careful study of this region will show that practically all are due to infection primarily but we are of the opinion that all will become infected sooner or later. Many cases are produced by renal mobility, partial occlusion of the ureter by stone, pressure by pregnancy or pelvic tumor, aberrant blood vessels, and occasionally abnormal implantation of the ureter. Our observations lead us to believe that the infection is a result rather than a cause.

Organic strictures will produce hydronephrosis but it is so seldom seen that we can practically disregard it. In our experience the type of infection occurring in the ureter and kidney pelvis is conducive to dilation rather than stricture.

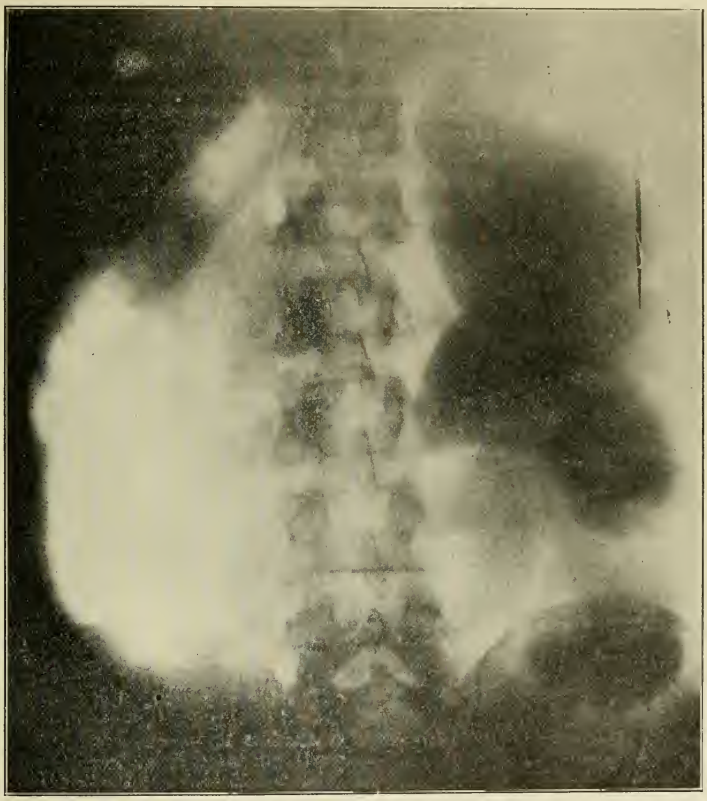
Infection hastens hydronephrotic atropy. Hinman has shown in his experimental work that markedly atrophic structures manifest a strong tendency to undergo considerable antomatic and functional restoration, and certainly is this true in cases where the obstruction has not persisted for more than sixty days. Where it has continued ninety-five days or longer recovery has not been demonstrated.



Slight Hydronephrosis and Dilated Ureter Due to Chronic Infection.

The most constant symptoms of hydronephrosis is a dull intermittent pain in the region of the affected kidney, usually in the back, but frequently severe in the abdomen. The urinary symptoms, in a simple hydronephrosis, are usually slight but with infection they may be marked.

The treatment depends upon the size of the hydronephrosis, the amount of pressure atrophy,—as indicated by the phthalein output from each kidney,—and the amount of infection present. If the secretory power of the hydronephrotic kidney is poor and the opposite one good and normal in position,



Very Large Hydronephrosis—52 ozs. Cause Unknown.

The diagnosis is made by ureteral catheterization, pyelography and ureterogram. The pyelogram will determine not only the size of the pelvis but also definitely locate the kidney and outline its calyces. The latter is frequently of great importance. The ureterogram will locate the obstruction, if any, and outline the lumen of the ureter. Stricture or kink can be demonstrated in this way.

nephrectomy is advisable but if the hydronephrosis is bilateral and the total functional activity poor, procedures designed to correct the obstruction and drain the kidney pelvis are preferable. Wonderful improvement is often obtained by pelvic lavage in the infected cases and should always be given a trial. In cases where the hydronephrosis is not complicated with infection and the

hydronephrotic sack large, a plastic operation is preferable. This is indicated especially in those cases where the ureter is so situated that it affords incomplete pelvic drainage. This operation is advisable in certain infected cases.

Suture of a movable kidney in its normal bed, ligation and division of a blood vessel pressing on the ureter, and the removal of a stone blocking it are all indicated. Where the obstruction is due to pregnancy, abdominal or pelvic growth, the removal of same is usually sufficient.

RELATION OF PUBLIC HEALTH WORK TO THE BUSINESS INTEREST OF THE EYE, EAR, NOSE AND THROAT SPECIALISTS OF NORTH CAROLINA.*

By G. M. Cooper, M. D., Director, Medical Inspection of Schools, State Board of Health, Raleigh.

Mr. Chairman and Gentlemen:

When I was awarded the courtesy by your Chairman, Dr. Banner, of having a part in this program, after several days' consideration of the matter, I decided to accept the generous invitation extended to me, and chose for consideration the above subject. It is my purpose to discuss this question briefly, frankly, and impersonally. In order to keep our perspective clear and because he has expressed so definitely and concisely my own conception of the work of the physician individually and as a class, I am quoting the following paragraph from a recent presidential address before the American Neurological Association by Dr. James H. McBride, of California:

"It is an important truth that nothing stands alone in this world, not even a medical association. We go up or down together. We are here today not solely because we are physicians, but also for the reason that society created us as a profession because it needed us, and we are therefore always serving its purpose. Our most private work is really a social and public work, so that in all we are going on the errands of society. Each one of us is an essential part of this moving human order that keeps society together and holds humanity to its sober task.

"In this period of industrial and social reconstruction, when all interests are becoming intertwined, when human interspaces grow smaller, and new relations create problems that change our views of life and society, it is necessary that the medical profession also make certain readjustments and that it annex human interests to its older activities, if its members are to maintain its fine traditions and keep step with social progress.

Something like ten years ago, when the real progressive sections woke up to the importance of enforcing compulsory vaccination against smallpox as the only means of combatting that disease, and when the wide-awake school boards of these same sections began to enforce the requirements of vaccination before pupils should be admitted to the public schools, considerable apprehension spread throughout the length and breadth of the State on the part of a great number of physicians, many of whom openly expressed the fear that the activities of the health department in the control of smallpox was going to make serious inroads into the income of the private physicians, and that by paying for this vaccination service by the day and to a single health officer in each county or city instead of farming it out on the basis of private fees, strenuous opposition developed as the perusal of the literature of that day will afford abundant proof. This attitude is looked upon today as ridiculous and the private physicians still have work to do.

About five years ago, when the State Board of Health began its first systematic effort at the control of typhoid fever, one of the methods used, especially for its educational value, was the offer of voluntary free vaccination against this disease. Here again we were met by the same cry that the State Board of Health is encroaching in the field of private practice, and that the physicians' income is placed in jeopardy. The fear and apprehension was so widespread here that it become necessary for the Secretary of the State Board of Health to discuss this matter formally at the meeting of the State Medical Society as late as April, 1917. Today that attitude on the part of these physicians appears just as ridiculous or even more so than the fury against public vaccination against smallpox. The physicians are still doing business and making more money than they ever have in their lives.

There are today in North Carolina

836,000 school children enrolled in the school census of the State. From accurate facts that cannot possibly be disputed there are not less than 125,000 of those children needing operations for removal of diseased tonsils and adenoids so badly that their parents, their teachers and their neighbors will readily assert this fact. Many thousands more of them have defective vision, latent and incipient tuberculosis, defective hearing and other easily preventable defects, to say nothing of the 75 per cent of this great total who have dental defects. Thus you see today, right this minute, in North Carolina there are 125,000 children that need this operation. They need it badly. The number is being each day augmented by the new recruits of children coming six years of age and entering school. There are at the other end of the line passing out of school on into adult life others who are carrying their handicaps, as I have done, all their lives for the lack of this operation. Thus, you see, if the specialists in North Carolina who have license to practice medicine and have hung out as specialists, both part-time, full-time or what not, were to begin operating on these children, supposing that they were presented for the service, each man of you would have to operate on 1,475 children before the end of the year to clear up what is enrolled in the schools today. This estimate is lower by at least five per cent than has ever been published by any responsible agency in the United States, a recent writer in The Saturday Evening Post giving a 25 per cent higher estimate for the country at large than this.

Now, what are the real facts concerning these operations? It is this: Less than one per cent of these children under the system that has been in vogue in North Carolina up to and including the present, on the part of the specialists and the public generally, will ever even consult a specialist. Less than 10 per cent of them will ever even consult a general practioner. Why? Because they have never been convinced of the necessity for such remedial treatment and because of the morbid fear of the word **operation** and all that it implies. This applies to the people who have the money as well as indigents.

The only concern the State Board of Health has in this matter is to convince the people of the necessity for these operations so that every effort possible may be made in order that they have it done for the benefit of the next generation of men and women of North Carolina. The work that the State Board of Health has been doing is to make a mighty effort to arouse widespread interest as to the necessity for the operation. We have found everywhere that the first thing that had to be combatted was that it is not a scheme to make money for doctors.

The one reason that medical inspection of schools as practiced in a routine manner in the United States has been productive of so little real good has been that when a child is examined in school by a medical inspector or nurse and a note sent to the parent advising that the child is not physically normal and urging that a physician be consulted, ninety-nine out of every hundred of them throw the card in the fire with the comment that "this is just affording jobs for doctors who cannot make a living, and for old maid nurses; and then it is being done chiefly in the interest of doctors who want to get the children to treat." Consequently, when we talke it absolutely out of the field of commercialism and center our whole efforts on the operation, only benificent results may be expected to follow. To do this without classification of children according to social or financial standing, race, color or creed, we are finding a much better comprehension of what the operation means. And what it means, when this sentiment is crystalized and universally accepted by all the people in North Carolina, to the business interests of every specialist practically a one-eyed man or a fool could readily see.

Again, the best time to do these operations and the time that we urge upon everybody is in the pre-school age immediately preceding the starting of the child to school. It is a common practice now to hold children out of school, as a rule, until the beginning of their seventh year, and very wisely so, I think. Therefore, we urge upon the people the necessity of having these operations done during this period—from five to seven years of age—when possible. That naturally places this in the hands of their private specialists, because school physicians have nothing to do with the children until they are enrolled

in school. You can see therefore the enormous business benefits to the specialists wherever this advice is accepted and put into practice.

In conclusion, I may state that the prime reason for the existence of a department of medical inspection of schools of the State Board of Health is (1) to find defective children and get them treated; (2) to convince the parents and guardians and teachers of the children from Cherokee to Currituck of the necessity for the correction of remedial physical defects as early as possible; (3) it is our aim and intention to work in the utmost harmony with the medical profession, especially the specialists of North Carolina, and with the teaching profession and school authorities in the attainment of this ideal. Your assistance is needed and will be appreciated now and in the future as in the past.

*Read before the North Carolina State Medical Society at its meeting in Charlotte, N. C., April, 1920.

CAESAREAN SECTION — INDICATIONS FOR AND TECHNIC.

M. J. Payne, M. D., F. A. C. S.

The term Caesarean section (laperohysterotomy) is applied to the operation which consists in the extraction of the child through an abdominal and uterine incision. The terms vaginal Caesarean section and supra-public Caesarean section are well understood and call for no special definition.

The indications for this operation are three kinds, positive, relative, and elective.

The positive indications are:

A. Whenever the maternal or fetal dystocia is so great that it is impossible to remove either the living or dead fetus through the natural passages.

B. Whenever it is impossible to remove the living child through the natural passages. Embryotomy or craniotomy should be made illegal.

Relative indications for the operation of Caesarean section are somewhat broader and are not so clearly marked and defined as the positive indications. They are:

A. Whenever fetal delivery can not be done successfully without inflicting great trauma upon the mother in the presence of a dead child. It is believed that the living child should never be purposely destroyed either by craniotomy or embryotomy; that no operation or method of delivery should be employed in which such forcible means of delivery would be employed as would endanger the life of the child and the life of the mother to a greater extent than Caesarean section.

B. Whenever a conjugate diameter is presented of three inches (7.62 cm.) with a living child, and two and five-tenths inches (6.35 cm.) with a dead child, better operators agree that Caesarean section is the better procedure.

C. Pelvic deformities probably present the commonest indications for this mode of delivery.

D. Pelvic tumors of any kind.

E. Cervical atresia, and malignancy of the cervix with the co-existing infection demands Caesarean section.

F. Eclampsia, placenta praevia, and infections, specific infections, of the genital tract.

G. Abnormal development of the cervix, incapable of safe dilatation, either by natural or forcible means.

H. Osteomalacia.

I. Monstrosities, utero-fetal adhesions.

The elective group of indications for Caesarean section is broad, and broadening each day. The child is often the greatest sufferer (Hirst) at the time of birth, and it may well be pointed out that the effects of injuries at birth are of great economic importance. In many instances, the child injured at the time of birth becomes a helpless afflicted dependent. Snow's statistics, based on almost a million and one-half births, show that two hundred and fifty thousand infants are lost annually in the United States during the first four weeks of infant life. Few subjects, then, are of greater importance, not only to the medical profession but to the people, than the question of obstetric education. The unskillful practice of obstetrics emphasizes, therefore, the urgent necessity for better education of obstetricians, and a more careful consideration of the important elective group of indications for Caesarean section.

Lapthorn Smith (B. M. J.) believes that many of the lives lost by the "wait-and-see" method of treatment of eclampsia would be saved by prompt ac-

tion. It is believed, also, that the same is true of placenta praevia. It is urged that all cases presenting for obstetric care should be carefully studied. Careful case histories should be obtained, proper examination of the urinary output made with renal tests in all doubtful cases, accurate pelvimetry, and fetal measurements or estimation (fetometry) be made. Fetal position should be carefully observed in all cases, and the absence or presence of placenta praevia should be confirmed by careful examinations. Obstetric judgment is difficult, and much experience and study is necessary in order to gain sound obstetric judgment which is the best guide for the determination of any elective Caesarean section. A case should not go through the "test of labor" before determining the wisdom of resorting to Caesarean section. In all cases where one feels the necessity for waiting for "the test of labor" elective Caesarean section should be chosen. Five hundred and fifty cases reported recently by one author without a death within one hour after the first convulsion in eclampsia demonstrated this operation to be one of the safest abdominal operations of modern times. All procedures, therefore, included under the term accouchment force as well as vaginal Caesarean section, pubiotomy, symphisectomy, craniotomy, and embryotomy must be discarded in favor of the simple, safe, and more easily carried out operation of modern abdominal Caesarean section.

The technique of Caesarean section may be carried out with but slight trauma to the mother, and with great safety to the child. The various methods of accouchment force (that is, forceps, version, craniotomy, embryotomy) are all attended by more or less violence or trauma to the mother, and, likewise, are accompanied by injuries to the child resulting in immediate death of the child or rendering the child helpless by reason of some condition brought about by the trauma incident to the delivery, and persisting after the birth. The slighter injuries resulting from the various methods of accouchment force may affect the child remotely, and give rise, in later life, to psycoses or mental and physical impairment not heretofore understood to be attributable to the injuries received at the time of birth. The writer, therefore, believes that the obstetric surgeon should choose Caesarean section in all doubtful cases rather than wait for the test of labor and then be compelled to resort to ill-advised or unadvisable methods of delivery.

The presence of physiological incompetence for labor is usually seen in those considerably beyond the usual age of primiparous women, and are of the neurotic type, poorly nourished, and presenting definite tissue changes more noticeable in the cervix and uterus. The patients, as a rule, have married rather late in life and are overweight, and give a history of abnormal menstruation, and some, also, show derangement in the formation of the internal secretions. The most striking evidence in the cases is the failure of the uterus to cause the child to descend in the last few weeks of pregnancy. One will find, in this class of case, that the uterine contractions are so slight as to be almost unrecognizable. A pathological condition of the uterine muscle or of the nerve supply may exist, and one can not be sure of the existence of such a pathological condition by any ordinary examination. The use of pituitrin in this class of case will be attended by great danger to the mother and disappointment to the obstetrician. Kosmak states, in a paper titled "Conservative Treatment of Placenta Praevis," that in primipara presenting a rigid and only slightly dilated cervix, and the probability of a central placenta praevia with the child at or near term and still in good condition (because the amount of bleeding has not been extreme) there is no question but what the abdominal Caesarean section offers the best method of delivery for the mother and the fetus. The elective Caesarean section should be carefully considered in all known cases of placenta praevia, for the reason so often expressed of experienced by obstetricians, that the hemorrhage may become, in a moment, alarming: indeed, often fatal.

In the primapara, showing a slightly contracted pelvis, a large fetus, a lack of development of the uterus, a physiological incompetency for labor, the obstetrician should not hesitate to elect Caesarean section provided a competent operator is at hand. Likewise, the elective Caesarean section should be chosen whenever faulty positions of the child can not be corrected and followed by safe delivery by the forceps or by version.

Davis states that "recovery from elective Caesarean section is often more speedy and complete than after a fatiguing and tedious labor. Mortality is no greater than after any other operation of equal importance."

Finally, the patient may be sterilized, if such a course is considered advisable, and should indications exist for more radical surgery, e. g. removal of the uterus or the tubes and ovaries, the indicated operation may be completed without any added hazard.

Technique.

The preparation for elective Caesarean section should include careful history taking, and complete physical examination including the blood, urine, and renal function.

The immediate preparation for the operation differs in no essential particular from that of any other abdominal operation.

The abdomen is opened through an incision in the mid-line, extending from one inch above the symphisis upward to not more than one inch above the umbilicus. Although the uterus is in front of the intestines, the usual care should be exercised in opening the abdomen not to wound the intestines.

The general abdominal cavity is protected by well placed towels wrung from warm salt solution, and the uterus is now opened by an incision in the midline of the anterior wall, extending from the contracting ring upward for about six inches. No haste is made and none is required, in making this incision as it is far better to proceed carefully, seizing the bleeding uterine vessels cut, and advancing until the cavity of the uterus is opened. The membranes may, in this way, be preserved until added towels are placed and the amniotic fluid may be absorbed, thereby preventing any fluid entering the abdominal cavity. At the moment the mebranes are ruptured, an assistant should make firm and equal pressure on the fundus of the uterus in order to hold the uterus firmly against the abdominal wall.

The operator now inserts the hand into the uterus and preferably causes the fetal head to present at the incision, while, at the same time, the assistant should make firm pressure through the abdominal wall upon the uterus, and, in this way, assist in the expulsion from the uterus of the child. Care should be employed not to tear the uterine wall, as an irregular tear is difficult to close.

The child delivered is handed to an assistant, and a few moments should now pass in order that the child may receive ample blood before the cord is clamped, cut, and then tied by the assistant.

Delivery of the placenta is accomplished by pressure through the abdominal wall directed against the fundus of the uterus and by very gentle and careful traction on the placenta or manipulation on the part of the operator. In the case of placenta praevia, the hand must be passed into the uterine cavity and the placenta carefully pushed away from its attachment, avoiding any traction or pulling. This part of the operation should be gently and very carefully carried out.

The incision in the uterus is now closed by carefully placed interrupted stitches of chromic catgut No. 2 in three tiers. The first tier stitches includes the peritoneal and muscular wall, but not the mucosa, and are placed about one-half inch apart. The uterine cavity is now sponged dry, and the several stitches so placed are tied. It will be observed that the uterus will now contract firmly. An ampule of pituitrin S. should be given to cause the uterus to contract. The stitch first placed at either end of the incision in the uterus is left long temporarily and is used as a rethactor to steady the uterus while inserting the subsequent sutures. The edges of the incision in the uterus may be seized about the middle of the incision by toothed forceps which are held apart, everting the edges of the incision while the deep sutures are placed.

The manual pressure applied to the uterus by the assistant as the final stitch is tied should cause all blood to be expelled from the uterine cavity.

The second plans consists of half-deep suture, inserted between the deep sutures for closer approximation.

Finally the sero-serous or perito-peritoneal mattress stitches are placed, closing over the seemingly deeper layers of sutures.

The operator should endeavor to close the uterine incision so accurately as to make it impossible for blood or any fluid to escape from the uterus into the peritoneal cavity.

No attempt is made to dilate the cer-

vical canal, as this is not only unnecessary (Williams), but unwarranted in light of the probabilities of infecting the uterine cavity. For the same reason the placing of gauze or tube drainage through the cervical canal is unnecessary and unwise.

It is felt that the operation is not necessarily a "bloody one," as is often stated, for the technique, carefully carried out without undue haste, should show, certainly, no greater loss of blood than a normal delivery.

The towels are removed, and the addominal cavity cleansed of any clots of fluid. The incision in the abdominal wall may be closed in any approved manner.

Comment: It will be observed that the uterus is not delivered from the abdominal cavity. The delivery of the uterus is unnecessary, and, I think, adds to the risk of soiling the cavity.

In the following cases all mothers are living, and all children living. Recoveries uncomplicated.

Case No. 1—King's Daughters' Hospital, Staunton, Va., Renal insufficiency. Functional test, 14 first hour; 26 second hour.

Case No. 2—King's Daughters' Hospital, Staunton, Va., Esclampsia in active convulsions and renal insufficiency.

Case No. 3—King's Daughters' Hospital, Staunton, Va., Placento praevia.

Case No. 4—Contracted plevis with placenta praevia complete.

RELATIVE VALUES AND FINANCIAL EQUIVALENTS IN CONTROL OF TYPHOID AND OTHER FILTH-BORN DISEASES.

Dr. C. W. Armstrong, Salisbury, N. C.

In my opinion, in no other phase of Public Health work and disease prevention can greater results be shown both as to the saving of life and dollars, than in the prevention of filth-born diseases.

There is probably nothing which so devitalizes a community as an epidemic of typhoid fever, and nothing that can give parents and physicians more anxiety than the diarrheas and dysenteries of children. In a community where these diseases are prevalent and where no steps have been taken to prevent them, it is often difficult to make the town and county officials see the advisability of taking such steps. It is some time hard to make them see that it would be a good financial investment should they appropriate a sum of money to be used in the prevention of these and other diseases. Even a very rich community will hesitate in some instances to make such appropriations. But if they can be shown that for every dollar they invest they will get that much and more in return, and also make their community a better place in which to live, it makes it a much easier proposition to put over.

It pays to have your community free from typhoid fever, not alone because of the fact that the citizens save their money, which they would otherwise pay out for doctor's bills, medicine, nursing, etc., but also because of the fact that if you have a low typhoid rate in your town or county it is a distinct business asset. For the purpose of illustration I will site an instance in the town of Salisbury. During the past year two wealthy capitalists were considering establishing business in the City of Salisbury which would mean a great deal to our town in the way of increased population, increased taxation (both as to corporation and individual) a good deal of money coming to the town and all the other things which a large corporation means to the community in which they locate. One of the first questions asked by these men was, "How much typhoid fever have you here, and what steps are being taken to prevent it?" The fact that we were able to say to them that every known means was being used for the eradication of typhoid, and that the rate in the county had been reduced from 109 cases in 1918 to 54 cases in 1919, and from 44 cases in the city in 1918 to 2 cases in 1919, went a long way toward bringing these manufacturing plants to our town.

It has been estimated that every case of typhoid fever costs the individual at least $200. I consider this a very low estimate. This represents actual cash expenditure for doctor's bills, nursing, medicine, etc. In addition to this an individual, if he be of working age, must lose time from his work for six weeks to two months, with the resulting loss to him in wages and the loss to the community for his non-production during this time. At this rate typhoid fever cost the people of Salisbury $8,800 in

actual cash put out in 1918, and $400 in 1919. The people of Rowan County spent in 1918 on typhoid fever $21,800; and $10,800 in 1919. This represents a saving to the people of the county of $11,000 during the year of 1919, and $8,400 to the people of Salisbury. This amount of money which they saved on typhoid fever alone is sufficient to maintain a full-time county health department consisting of full-time health officer, office assistant, two nurses and a sanitary inspector, for a year's time.

For a county to have accomplished this work without the services of a full-time health department would have cost them not less than $8,485.40 as the following figures show.

4,609 people were vaccinated against typhoid fever, which would have cost the county at least fifty cents a dose; totaling $2,304.50.

2,446 sanitary closets built in the county, which would easily have cost them $2.00 each; totaling $4,892.00.

100 public meetings held and lectures given on sanitation with a total attendance of 12,889; at the estimated cost of ten cents for each person—total of $1,288.90.

The total amount of Public Health Work done in Rowan County during the past year cost the county, they paying 60% of the total budget, $3,664, and in return for this amount expended, they got work done for the prevention of filth-borne diseases alone, to the value of $8,485.40. The people of the county saved $11,000 to say nothing of the prevention of death and suffering all over the county.

The question has been asked "Is Public Health Purchasable?" These figures indicate to me very clearly that it is.

PUBLIC HEALTH NURSING AS IT RELATES TO COUNTY HEALTH WORK.*

—I feel toward the Health Officers much like a U. S. P. H. S. man who recently spoke to 3,000 nurses in Atlanta and said: "It frightens me a great deal less to meet One of you 3,000 times than to meet 3,000 of you at Once."

Rose M. Ehrenfeld, R. N.,
Director, Bureau Public Health Nursing and Infant Hygiene, North Carolina State Board of Health.

*Paper read before State Health Officers' Meeting, Charlotte, N. C., April 19th, 1920.

The Public Health Nurse is today the focus of interest in the whole public health movement, and—in view of the growing importance assigned to the role of the public health nurse in State, county and municipal health programs (while her profession is of so recent origin and still in formative stage)—it is essential to provide a directing agency to guide in the development and standardization of her work.

The South especially is approaching their health problems with the county as a logical unit of health organization and if so organized they can direct efforts along health lines through the proper channels.

The Bureau of Public Health Nursing and Infant Hygiene, established jointly by the American Red Cross and State Board of Health,—in addition to an extensive infant hygiene educational program—has become responsible for:

1. Organization and promotion of public health nursing on a county basis.
2. Establishment of minimum standards.
3. Securing of scholarships for and appointment of nurses.
4. Supervision of their work. The Bureau has a public-health-nurse-director and two assistants who act as supervising nurses.

Supervision is a matter of co-operation and construction and not (as so often assumed) of repression and restraint; and has been defined as "democratic leadership of a staff in such a way as to develop a high standard of work." The nurse does not so much need additional technical training, but rather aid in utilizing group methods—and a supervisor, by establishing such means as conferences, system of reports and advisory visits, will bring her associates to form policies and will turn all the resources of the community to make her associates free to carry out and improve these policies.

The county nurse is a practical instrument in meeting the fundamental needs of the country people. Some of the fundamental needs of the unreached family in the open country can best be determined by asking the question—"Why is an unreached family?" We remember of puzzling (as children) over the question of "Why is a cow?" to which there seemed no answer, but to "Why is an unreached family?" there is an answer:

1. Because there are no hospitals;
2. The number of people afraid of hospitals, prejudiced against them—or the limited capacity of the hospitals;
3. The country not supplied with physicians;
4. The fee attached for medical service;
5. No attendance for the sick-bed at the time of confinement;
6. Because the State legislature does not provide for its people. (When a sheep dies it is money out of the pocket—when a person dies—"he has to die anyway");
7. Because they live in a place where extension work ordinarily does not reach.

In no way is the nurse an acceptable substitute for a health officer. She may precede in a county the health officer, but a full-time health department is one of the developments for which she works. Most of the nurses accept scholarships for public health training with in view "assignment to some particular field." The ones assigned to counties spend a day at the Bureau office in advance of taking up the work. On that occasion they are told of the opportunity that is theirs as pioneer workers and that public health nursing in their particular counties is going to reach just where they take it and that results obtained are going to depend on what they make it. They are acquainted with the general working plan of the State Board of Health—given a copy of "Compilation of Public Health Laws for North Carolina," and receive detail instruction in the units of work to be undertaken; as well as the system of records and reports, and are made to realize they are not isolated workers in independent fields, but rather each in her own county (as representative of the two agencies backing her work) is to have the advantage of information both the American Red Cross and State Board of Health furnish—and that her work is an integral part of their combined program.

Where there is a full-time county health department, the nurse is of course detailed to that department and works under the direction of the county health officer, although her work is usually financed by an outside volunteer agency. (At the present time provision in county health department budgets for a nurse is made in only two N. C. counties). In counties where there is no full-time health department, she works under a council or committee of 5 to 15 members, including representation of the Red Cross Chapter, Board of Health and other representative county organizations—and does practically the same units of work as undertaken where a health department exists.

The greatest value of the public health nurse lies in the actual educational work in the field. Her humanity is the medium through which she wins people, her professional ability and advice the gifts she is privileged to offer. The ultimate aim of the development is to have nurses in proportion to the population in sufficient numbers to do all kinds of public health nursing—but, in launching the work with one trained worker, the contribution she can make to as large a territory as a county depends upon the geography, condition of roads, transportation, etc.

Taking these into consideration, it is obvious that no appreciable amount of bedside care can be given, for which reason there is a possibility of her position in the county being misunderstood, unless, upon arrival, she gets in touch with the individual physicians (or the county medical society) and offers her assistance in clearly defined lines and makes clear that her presence as well as the instruction she will give the rural women in carrying out physicians' orders and better caring for patients in the homes, will mean more intelligent co-operation on the part of their patients. It should be made clear at that time that she will stay within the jurisdiction of a nurse and that, if her work is successful, the physicians will receive calls earlier.

It must be remembered her work is primarily preventive and educational rather than curative. While the position of bedside care in the program of one-nurse-to-a-county must necessarily be in the rear ranks, its value as an opportunity for teaching is appreciated. It is sometimes the only means of gaining family confidence and co-operation. For this reason it is to be recommended by periodic visits giving demonstrations, instruction and encouragement for like attention by a member of the family, rather than in the nature of spasmodic private duty, as some of the physicians seem to expect.

After carefully studying the greatest need of the counties and planning for the utilization of one worker's service to the best advantage—the nature of activities and scope of duties at present undertaken by the County P. H. Nurse are indicated in the following units:

I. The Unit of Tuberculosis—which calls for:

1. Securing the names of reported tuberculous cases in the county.

2. Visiting them in their homes as often as possible to give such nursing attention and the household such necessary instruction to secure the best care of patient and proper protection for the family.

3. Visiting every discharged tuberculous soldier, sailor or nurse, with the plan for sanatoria treatment as furnished by the Bureau of Tuberculosis, State Board of Health.

4. Educational campaign through public schools by means of lantern slides, lectures and distribution of literature furnished by State Tuberculosis Sanatorium.

5. Investigating general health of families where there is or has within three years existed tuberculosis and arranging for diagnostic clinics. (A diagnostician from Sanatorium, a nurse from Bureau of Public Health Nursing and Infant Hygiene, together with the county nurse, make the clinical personnel. Three such clinics have been held and three appointments for May).

6. The nurse will try to secure care or treatment for all tuberculous cases found, according to available resources. (Either in State or private sanatorium treatment, or through a clinic, or by supervision of the family physician, county health officer or county physician.)

II. The Unit of Infant Hygine—which calls for:

1. Individual or group instruction of midwives, in the principles of personal hygiene and hygiene of pregnancy, etc.

2. Individual or group instruction of women in essentials of home sanitation; prenatal and postnatal care; feeding of infants, and physical inspection of children brought by their mothers to the nurse.

3. Keeping track of breast-fed, bottle-fed babies and children under two years of age, suffering from digestive disturbances and diarrheal disease. It is here especially that the State plan is proving itself practical and carrying to the unreached family at the head of the hollow—where the nurse visiting in the home is interpreting to the mother handicapped by lack of education, the prenatal advisory letters being sent to all such cases reported, furnishing approximate date of confinement. In sections of the open country where the boulevard fades into the squirrel track that runs up a tree, is she meeting a great need by planning a better balanced diet for the all-too-frequently-undernourished country child, from the limited variety within the reach of the mother. It is here that conspicuous pieces of preventive work are being accomplished—and from here that frequent expressions of gratitude are received.

III. The Units of Quarantine and Soil Pollution call for:

Assistance to the county health director in performing the duties required by law for the control of communicable diseases and in finding or treating children with hookworm—and by educational means seeking to bring about widespread adoption of sanitary privies, etc.

I believe there will be no appreciable "Back to the Farm" movement until the sanitary conditions of the rural districts are improved. The nurse grounded in and making the principles of preventive-medicine part of her life, can do much to improve the health and increase the efficiency of rural people by conscientiously agitating sanitary improvements. If a farmer is shown that money spent for sanitation is a good investment, he will invest—and thus encourage the "Back to the Farm."

Unit IV calls for:

Co-operation with the Bureau of Medical Inspection of Schools in assisting the health officer record and classify cards of school children with defects and through educational means help to secure proper treatment. In counties where there are not health officers, the nurse follows such specific instructions given by Dr. Cooper (Director, Medical Inspection of Schools, State Board of Health) for her particular county.

A great need(as the county nurse sees it) is for courses in normal schools and at teachers' institutes, to prepare teachers for handling health subjects. (Generally they know neither what nor

how to teach.) Also the pupils' physical progress being recognized as worth recording and one of the factors to be considered in passing from grade to grade. (I recently heard a story that indicates the unpreparedness of the rural teachers. It was a history class and to the row of boys on the front seat was asked the question, "How did Lincoln spend his life?" "He spent his life on a farm," "He spent his life splitting rails," "He spent his life 'on a boat'," or "sawing wood," each in turn was answered by "No" from the teacher, who, drawing a deep breath, said—"Why don't you boys learn your lesson—the BOOK SAYS 'His life was spent in HARDSHIPS'!"

Now, the Rural Sections need information and the way to inform them is through the schools and the NEED for information is no greater than is the necessity of getting that information to work. If this story is an example of the way health subjects are being handled, has the time not come when the book with the number of bones, arteries and veins, together with their names, be cast aside and replaced by THE MODERN HEALTH CRUSADE with the practical doing of daily health chores. The nurses have been instrumental in getting this movement introduced in some of the rural schools.

In some of the high schools they are giving the standard courses of instruction in HOME HYGIENE and Care of the Sick, and we hope the time will come when this instruction will find a permanent place in the curriculum.

We feel toward the school that there, 1st, should be required a thorough physical examination before the child is allowed to enter schools; 2nd, a pair of scales in every school, to encourage physical progress by visible gain in weight (due frequently to proper diet, sufficient rest, less coffee as a substitute for milk, fewer movies, etc); 3rd, time allowed for teaching health habits and teachers prepared to do it; 4th, so far as possible, a warm item in the school lunch; 5th, that every child's physical report should go home monthly with the school record.

In one mountain county the nurse has been instrumental in getting the moving pictures on health subjects run during Institute Week—and public health playlets given by the schools. These are instances of effective educational work.

The following citations further testify to the need of the county public health nurses:

(1) One nurse found seven midwives at a county seat who were not registered with the State Board of Health, and an eighth in a nearby town. Another located four who claimed ignorance of the law regarding silver nitrate.

(2) We know of one county with 200 midwives, 75 of them have been reached by the health officer, 3 were men (1 white and 2 negroes). Conditions such as these account for "accidents of pregnacy" and prevalence of blindness.

(3) The Bureau of Vital Statistics issued in the year April 1919 to April 1920,—22,688 ampules of silver nitrate. In the last four months 10,904 were issued, as compared with 11,784 in the preceding 8 months of the year. Dr. Register gives the county nurses credit for half that increase.

From these instances—together with the value of such workers personally exemplified by the two county nurses on the program—it would seem that the action of a county in doing without a nurse to get a community building is the type of short-sightedness that leads a man to mortgage the home to buy an automobile. I believe the time will come when the properly qualified county public health nurse will be acknowledged as necessary as the county court house, and when—through legislation—it will be made financially possible for her to do for humanity what scientific agriculture is doing for the crops in proportion just as these two resources are relatively valuable to the State.

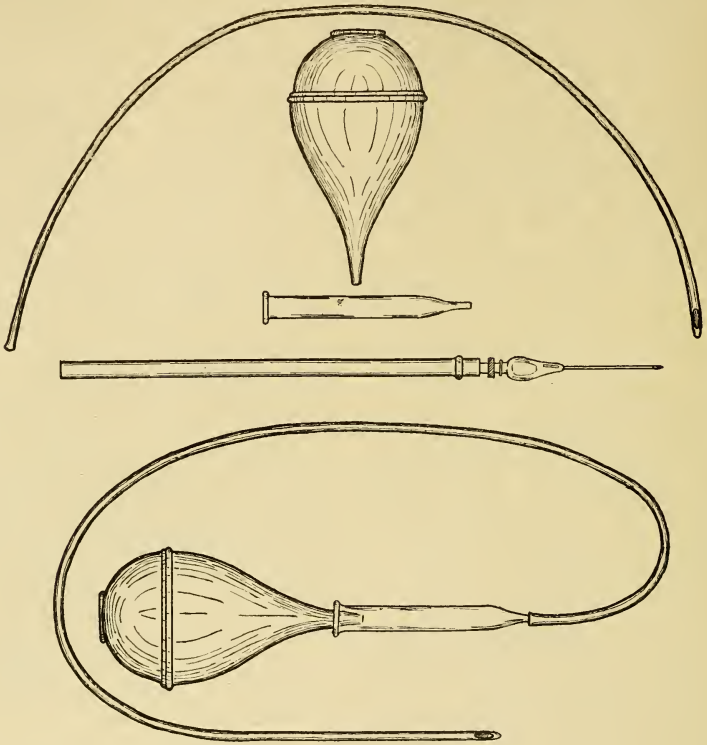
REPORT OF A SMALL INSTRUMENT

(Useful in General Practice.)

By Lester E. Hockette, M. D.,
Charlotte, N. C.

Someone said, or was accused of saying, way back yonder some time that "necessity is the mother of invention." No physician, of similar age in practice, need lay claim to a more frequent and painful meeting with one disagreeable Madame Necessity than I. So often one is caught away out in some home with a critical patient, demanding something almost immediately, but—there is nothing in the home to work with. Look where you will you only find cooking utensils and empty bottles filled at some drug store and the whole family wants

to know what was in the bottle and suggests that some neighbor has the same stuff if you think it would help the patient any. That isn't discussing the instrument.

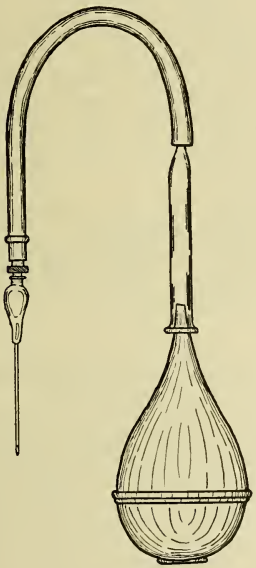


One of those dark rainy nights, with which you are all familiar, the telephone tried to have a convulsion and I answered it. The other party was only about ten miles distant and the baby very sick. "Please come just as quickly as you can." I went. Baby was eight months aged. He was screaming at the full capacity of his small lungs and very weak. A hasty examination revealed a small area of abdominal rigidity which was easily palpated between screams when the rest of the abdominal wall was relaxed. I made a tentative diagnosis of intussusception and suggested removing the patient to the hospital. The family immediately tried to emulate the performance of the telephone earlier in the night. Refused, of course, and I was confronted again with one Madame Necessity. I thought as I never thought before, even on college "finals," and after much mental labor, nervousness and (I do not deny it) perspiration, Madame Necessity gave birth to what I believe to be an invention or rather an idea for the combining of simple instruments into a valuable combination. In my medicine bag I had a simple soft rubber ear and ulcer syringe, a medicine dropper and a soft rubber catheter of the smallest size. I snatched the rubber bulb from the medicine dropper, inserted the short nozzle of the ear and ulcer syringe into the larger end of the glass barrel of the dropper and placed the smaller end of barrel into the flared end of the catheter. The result was I had in my hands an air-tight infant syringe that was nearly perfect in its workings.

Quickly preparing for a soapsuds en-

ema, we inserted the catheter-nozzle of our new syringe and began washing the bowel. We discovered that we could easily leave the catheter in the bowel and pull the glass barrel from the catheter and refill the bulb with the S. S. mixture. Placing my hand upon what I believed to be the invaginated bowel we injected bulbful after bulbful into the bowel, gradually working higher and higher, using only a moderate amount of force, until the sixth bulbful had been so used. I felt the bowel give slightly and slip away from my hand. The child ceased screaming and soon slept soundly. The recovery was uneventful.

Whether or not my diagnosis was correct the impression on my mind was profound. I did not forget the combined instrument. I shall always feel that I saved the life of at least one patient.



I am not crying aloud for originality or recognition. This instrument may have been so used years ago and by many. I do not know, neither do I care. This is written to call the attention of doctors who may have forgotten and those who may think that advising the hospital and its technique is all they can do.

This instrument has been very serviceable to me in many cases. It is applicable as an infant syringe, infant colonic irrigator, bladder syringe, nasal syringe, ear and ulcer irrigator and many other such usages. By simply transferring the glass barrel to a tube fitted with connections and needle a valuable instrument for aspirating furuncles and deeper abscesses can be quickly made.

Fearing that this poorly written article has not conveyed a complete understanding the enclosed cuts accompany it for your inspection. The parts separate .d assembled in cuts No. 1, A and B, constitute the syringe and cut No. 2 the aspirator.

Believing that much space in modern medical literature is taken up with long drawn out scientific investigations and reports that are not always practical for the busy practicioner of medicine and that many valuable, practical, applicable and conveyable discoveries are not reported because of temerity upon the part of the men who find and use them —I gathered courage enough to try to write this to help and also promote interest in this very kind of report.

May I suggest that in your cases of irritation of the trigone and simple cystitis, where you haven't the time to cystoscope, analyze, think and worry, you try this instrument and inject argyrol or silvol (in whatever percentage and strength your case requires) and see if you haven't a pleased patient and a walking person to bless your name.

303 College Place Apartments.

REPORT OF OBITUARY COMMITTEE NORTH CAROLINA MEDICAL SOCIETY, AS PRESENTED AT THE MEETING OF THE SOCIETY AT CHARLOTTE, N. C.

The Obituary Committee wish to make the following report: We sent out 214 letters seeking information, but have received only 30 replies.

The following letter and questionaire (Space prevents printing the questionaire.—Ed.) was sent to every County Medical Society; no county was sent less than two, some as many as five:

Open Letter of March 5.

Dear Doctor:

The Obituary Committee realizes the fact that the local physician is best qualified to write, or to have written, the obituaries of doctors in his communities; therefore, the committee is look-

ing to the local society of each county to supply us with an obituary of its members who have died since the last meeting of the State society.

We feel that it is a duty that physicians owe each other to see that the life's work of their brother physician is made a permanent record, and the only way that we can do this is to see that the proper tribute is presented to the State society so that it may appear in the annual transactions.

The legal fraternity always see to it that the obituary of their members is made a part of the records of the Superior Court of the county, whereas the doctor's life work is left to be handed down by tradition.

I am enclosing you a blank form which will aid you in collecting the necessary data for the obituary. We would appreciate it if you will at once look after this important matter, to write or have written the obituary of any lost member. Time is short and there is much work to be done before the meeting in Charlotte, on the 20th of April, so please forward to me as soon as possible the obituaries of your county, if you have any.

Yours very truly,

_____
Chairman.

In spite of the non-co-operation of the county societies, we have procured the obituaries of the following physicians:

1. Dr. W. P. Mercer, Elm City, died May 28, 1919.

2. Dr. E. M. McCoy, Charlotte, died May 28, 1919.

3. Dr. J. A. J. Penny, Neuse, died May 30, 1919.

4. Dr. T. Evans McBrayer, Shelby, died June 24, 1919.

5. Dr. Daniel M. Price, Laurinburg, died July 15, 1919.

6. Dr. Richard F. Speight, Sr., Whitaker, R. F. D., died Sept. 4, 1919.

7. Dr. M. P. Perry, Macon, died October 1 7,1919.

8. Dr. H. G. Lucas, White Oak, died November 27, 1919.

9. Dr. John G. Blount, Washington, N. C., died December 8, 1919.

10. Dr. Ivey G. Riddick, Raleigh, died January 1, 1920.

11. Dr. Edward C. Register, Charlotte, died February 18, 1920.

12. Dr. E. Reid Russell, Asheville, N. C.

13. Dr. E. W. Currie, Salisbury, N. C., died June 26, 1919.

14. Dr. John H. Williams, Asheville.

A. CHEATHAM,
Chairman,
B. O. EDWARDS,
N. D. BITTING,
E. G. MOORE.

Ideals of Treatment.

In an address delivered at the 15th anniversary of the founding of the Gaylord Farm Sanatorium, Wallingford, Conn., S. Adolphus Knopf discusses ideals that should animate the physician, nurse, patient and sanatorium. The address is a summary of our better present day methods of the treatment of tuberculosis.

Knopf, S. Adolphus: Ideals in the Treatment of Tuberculosis. The Ideal Sanatorium, the Ideal Physician, the Ideal Nurse, and the Ideal Patient. American Review of Tuberculosis, April, 1920, Vol. IV, No. 2.

Other Bacteria in Tuberculous Human Lungs.

John N. Hayes of Pittsburg reports the bacteriological findings from the study of the lungs of 52 tuberculous patients who died and were autopsied at U. S. A. General Hospital 19, Oteen, N. C. A number of concomitant microorganisms, streptococcus haemolyticus and viridans, staphylococcus albus and aureus, pneumococcus, micrococcus catarrhalis, Pfeiffer bacillus, etc., were encountered. He also examined many throats and sputa during life. He concludes that streptococcus haemolyticus was found in a large percentage of the throats and washed sputa. It was also found at autopsy in the caseous areas and cavities of the same patients' lungs. The author thinks it a probable factor in cavity formation.

Hayes, John N.: Secondary Invaders of Tuberculous Lungs. American Review of Tuberculosis, April 1920, Vol. IV, No. 2.

The New
Charlotte Medical Journal

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M. L. TOWNSEND, M. D. Editor.
J. C. MONTGOMERY, M. D. Executor
of the Estate of the late Dr. Register

CHARLOTTE, N. C.

VACATION TYPHOID.

Typhoid fever is still a source of concern to health officers in the larger cities. It is fairly certain that few cases of this disease today develop within city limits. Infection, in large measure, takes place in country places and cases are brought into the cities either innocently or for treatment. These facts are clearly brought out in the investigations of the origin of typhoid fever cases made by municipal health authorities.

The number of cases of typhoid fever increases with the approach of the vacation season and reaches the maximum in midsummer and in early autumn. The approach of the vacation season, therefore, affords an opportunity for departments of health to attack typhoid fever in advance. An intensive campaign of education can be begun in the late spring to acquaint city dwellers with the dangers of typhoid infection, and to encourage those who are likely to go to the country to be vaccinated against the disease. They may be urged also to exercise a wise choice in their boarding places. The insanitary privy, the shallow, infected well, the presence of many flies because of lack of screens, and the consuming of polluted milk and of other foods, produced or handled under insanitary conditions, constitute the chief sources of typhoid infection to the vacationist. Many cases, some of them fatal, can undoubtedly be avoided if city dwellers will keep the above points in mind in relation to their vacations. Much could also be accomplished if the state department of health, in the spring, intensified its campaign of sanitary supervision over rural areas. There is room for more cooperation between the cities and the outlying country areas in the further control of this rapidly disappearing sanitary nuisance.

MEDICAL EDUCATION

A. C. Eycleshymer, Chicago (Journal A. M. A., April 3, 1920), says that conditions are very different now than they were earlier in the last half century, when medical education was tinctured by commercialism, due to the development of our natural resources. The medical student's aim was to be an all round practitioner, and his teachers were selected largely, for their financial rather than intellectual qualifications. Today things are different. Individualism has been recognized, but measures have not been adopted as yet to meet this need. The schools are thus approaching an obstacle of their own creation. In creating a medical curriculum, we should ever be mindful that no two students are alike, and besides their varying in previous attainments and training, they differ also in energy and ability. What we should do is to determine the special needs of each man and keep in mind his adaptability for certain kinds of work. While the curriculum of each school is rigid, when compared they show wide differences. The school that is most actively engaged in investigation of borderland subjects that are constantly coming up, finds greatest difficulty in keeping a fixed curriculum. The author reproduces a curriculum advocated by the late Professor Mall, and quotes him as to its basis. Professor Mall has demonstrated through his students the soundness of his views of academic freedom, and in the proposed curriculum, besides the obligatory requirements, a considerably larger list of elective subjects are enumerated. The electives are the stepping stones to independent thought, and independent thought is the threshhold of knowledge, and should be encouraged.

THE AMERICAN COLLEGE OF SURGEONS, CHICAGO.

The Minimum Standard.

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed," nor need it affect the various existing types of staff organization. The word staff is here defined as the group of doctors who practice in the hospital inclusive of

all groups such as the "regular staff," the "visting staff," and the "associate staff."

2. That membership upon the staff be restricted to physicians and surgeons who are (a) competent in their respective fields and (b) worthy in character and in matters of professional ethics; that in this latter the practice of the division of fees, under any guise whatever, be prohibited.

3. That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:

(a) That staff meetings be held at least once each month. (In large hospitals the departments may choose to meet separately).

(b) That the staff review and analyze at regular intervals the clinical experience of the staff in the various departments of the hospital, such as medicine, surgery, and obstetrics; the clinical records of patients, free and pay, to be the basis for such review and analysis.

4. That accurate and complete case records be written for all patients and filed in an accessible manner in the hospital, a complete case record being one, except in an emergency, which includes the personal history; the physical examination, with clinical, pathological, and X-Ray findings when indicated; the working diagnosis; the treatment, medical and surgical; the medical progress; the condition on discharge with final diagnosis; and, in case of death, the autopsy findings when available.

5. That clinical laboratory facilities be available for the study, diagnoses, and treatment of patients, these facilities to include at least chemical, bacteriological, serological, histological, radiographic, and fluroscopic service in charge of trained technicians.

THE NAVY A "GREAT SCHOOL"

No man may live until himself alone. A doctor's privilege and responsibility in life does not end with prescribing drugs in his community. The doctor as much as any other man if he is the right sort, is looked up to and his advice sought and heeded. Because your advice and influence weigh heavy, we want every doctor to be familiar with the following facts about our great American navy. Those of you who have had sons or neighbors' sons, or who have yourself been in naval work "for the period of the emergency" most certainly will agree with and corroborate these statements.

"The New Navy is a great mechanical and electrical school. Every man with talent can perfect himself in a trade which will secure him rapid promotion in the Navy, or an excellent position in civil life.

President Pennsylvania Railroad says "We regard the fact that a man has been in the Navy, as an excellent recommendation."

President Bethlehem Steel Co., says "Regarding the qualifications of former enlisted men in the Navy that have entered our employ, it is with much pleasure that I inform you that without exception, we have found such men to be desirable; the exemplary training and opportunities given them in the service, are such as to place them in a position of advantage over any other training which they might receive."

President American Woolen Co., says "I am glad to testify my belief in the increased economic efficiency that results from the exact and thorough training of the United States Naval Service. It is one of the very best schools in the world and I believe this fact is more and more highly appreciated by the officers of the great industral corporations. A young man who has the right stuff in him, is by far a better all around man by the education the Navy gives him. There is something in the Navy and its life afloat that seems to quicken the brain and broaden the character of every man who has been fortunate enough to have had this experience."

President United States Glass Co., says, "It is usually the case, when a man has served in the United States Navy that he is superior in many ways to other men. They have a fine physique, usually have self control, understand discipline and are courteous and obedient. The writer is particularly strong in the opinion that the service makes real men out of its people and enables them to get further in the affairs of life, than one who has not had the advantage of scientific Naval training."

This is an appeal to you, to place the foregoing facts before the people of your community. I realize that few people away fro mthe seaboard know what our new Navy is and what it has to offer, especially to the young men of the South. He who enters the "Greatest School on Earth" will return to civil life 100% more efficient and will become a fine stabilizing element in the community.

THE NORTH CAROLINA BOARD MEDICAL EXAMINERS; 1920 to 1926.

The recent annual meeting of the Medical Society of the State of North Carolina held in Charlotte, N. C., April 20-23 elected a new State Board of Medical Examiners who assume their official duties at once and serve for the ensuing six years. Membership on this board is viewed by the Carolina profession as among its choicest honors; no one is ever re-elected, and since the constitution of the board by legislative enactment in 1859, its seven members have been regularly elected by the State Medical Society from among its ablest members. At the recent session, attended by fully five hundred physicians, eighteen nominations were made and on the first ballot the entire board was elected. And it may truhtfully be said that any seven of the number placed in nomination would have given the State and the profession creditable service.

The seven examiners are fairly well distributed over the State, with the single exception there is no examiner west of Gaston county, but this untoward result was attained by the profession in the mountain section dividing its vote between three excellent local candidates from Asheville instead of eliminating a couple and securing one examiner in that section where a majority of the temporary licenses are issued.

The combined age of the new board is 323, or an average of 46 years; while the years of practice of the different members range from 12 years up to 28; the average length of practice being slightly less than 20 years.

The new examiners were graduated from six medical colleges as follows: Med. Coll. Va., Balto. Med. Col., Univ. Md. Coll., Univ. Md., Univ. Louisville, and Johns Hopkins Univ.

The names and adressess are as follows:

Dr. K. P. B. Bonner, Morehead City.
Dr. L. A. Crowell, Lincolnton.
Dr. L. N. Glenn, Gastonia.
Dr. W. P. Holt, Duke.
Dr. Wm. M. Jones, Greensboro.
Dr. J. G. Murphy, Wilmington.
Dr. C. A. Shore, Raleigh.

The attention of the legislative committee of the Medical Society of the State of North Carolina is respectfully invited to the compensation allowed under the statute of 1870 the members of the N. C. State Board of Medical Examiners, being only four dollars per day and expenses. While probably a proper amount, and all the available funds permitted at that time as well as for a number of years afterward, this, in view of the present prevailing living cost and the notably increased revenues derived by the board, is not a proper allowance to the able medical men usually placed on the examing board of the State Medical Society. The State of Louisiana, and other States, have recognized the situation, and almost everywhere the examiners are allowed greater remuneration for their laborious duties to the State. The Louisiana law provides for the payment of ten dollars per day with expenses, and it is suggested that this would be a proper figure for Carolina legislation to place in our State law.

Bonds Not Necessary for Physicians.

Because it fully explains the question and is authority you cannot dispute, we quote literally the following editorial in the Journal A. M. A., April 10, 1920.

Apparently some of the by-products of prohibition are going to be as interesting as the main issue. Without intending to cast any slurs on our great and noble sister profession, it is indeed an ill wind that some lawyer cannot manipulate to his advantage. Juding from the letters received, physicians are being circularized by a member of the legal fraternity who has devised a method of helping them to comply with the prohibition law with the greatest amount of ease and convenience to themselves and with profit to him. The circulars have this interesting legend printed in large red type on the face of the envelope: "What the U. S. Government Allows You to Do. I Know the Law. I Will Do Everything but Sign

Your Name." The circular offers to assist physicians in securing government permits to purchase or prescribe liquor. While it does not expressly say so, the impression conveyed to the uninformed physician is that every practicing physician must file a bond in order to purchase or prescribe any amount of liquor. This is not the case. As stated in the abstract 1 of Internal Revenue Regulation No. 60, physicians desiring to purchase and prescribe liquors in their practice are required to procure a permit to prescribe. This can be obtained by filling out an application on Form 1404 in triplicate and filing it with the federal prohibition director of the State in which the physician is licensed to practice. This permit, when issued, allows him to prescribe liquor for medicinal purposes only, and when such liquor is necessary to afford relief from some known ailment. It also allows him to purchase not more than six quarts of liquor during any calendar year for professional use only. Bonds need not be filed by physicians, dentists or veterinarians, or by hospitals or sanatoriums unless required by the commissioner. It is not necessary for physicians to pay five dollars or any other amount to any lawyer or bonding company. No fee is required for registering and securing a permit under the prohibition law, and the government officers can and will do all that is necessary to assist a physician to procure a permit without any cost to him. The Journal has endeavored to keep its readers informed regarding the provisions of the prohibition law. It will continue to do so in the future. The requirements for registration under the law are not difficult; however, if any of our readers are in doubt as to what to do in order to comply with the law, we shall be glad to advise them.

Beef Bone Screws.

M. S. Henderson, Rochester, Minn., (Journal A. M. A., March 13, 1920) has found the use of beef-bone screws to be a great aid in grafting bone. He describes the method of making them. While the patient's own bone is preferable for use in grafting and would seem more fitting, the difficulty of making the screws properly renders, he finds, the beef bone generally better. Fresh beef bone is obtained usually from the tibia, the joints are sawed off and the shaft boiled for one and one half hours to remove the tissue and marrow. It is then sawed into pieces 3¾, 2⅜ and 1¼ inches long for large, medium and small sized screws, respectively. The medium sized screw is of aid in most situations, and many more of these are employed than of the others. "The sizes used by us are standard, and in mechanical terms the large screws are known as 5/16 by 18, the medium size as 10 by 24, and the small as 6 by 32. The lengths adopted are arbitrary and may be varied to suit the needs of the case. The pieces are sawed lengthwise into strips; their width varies according to the diameter of the screw to be made. The strips are roughly sized in the vise by filing, and are then turned to the proper size, pointed, and the head rounded in the lathe. These finished blanks are placed, for one-half hour, in petrolatum brought to melting point in a double boiler, in order to replace to some extent the natural oils removed by the boiling. This renders the bone a little less brittle and less likely to crumble when being threaded. The heat must not be extreme or the bone will be overheated and rendered almost chalky. The blanks are placed in the lathe and threaded by using a standard machine screw die. Petrolatum is freely used on the die while the threads are being cut. The large blank is threaded with a standard 5/16 inch by 18 die. The head is 5/16 inch long and is flattened on two sides to ¼ inch in thickness to fit a special wrench. The large screw when finished is ordinarily 3½ inches long, but this may be varied. The medium sized blank is finished into a screw 19/100 inch in diameter and 2¼ inch long. * * * A little more care is necessary in putting the threads on this size than on the large screw, and we found it necessary to step down the threads by using three dies: 12 by 24, 11 by 24, and 10 by 24. The small blank is for a screw 14/100 inch in diameter and 1⅛ inches long. It is necessary to step down the threads for this screw as follows: 8 by 32, 7 by 32, to 6 by 32. The heads of the two smaler screws are ¼ inch in diameter to allow for hexagonal shaping to a 3/16 inch standard. These fit a specially made socket wrench fitted to the end of a smal brace." These screws are cheap, easily made and tolerated by the bone. The main objection to them is their brittleness. Special instruments are required for placing them, and full directions are given. He discusses the objections to bone grafting

and concludes that the bone screws are a great aid in securing fixation of the graft to the fragment in fractures, and in grafts of the spinous processes.

Urology

A. J. Crowell, M. D., Department Editor

Nerve Deafness Due to Congenital Syphilis in Three Children.

The cases reported by M. B. Kay, Pittsburgh (Journal A. M. A., April 24, 1920), are remarkable not because syphilis has produced deafness, but because it has attacked all three children in one family in the same manner, every other part of the body escaping but the eighth nerve. Owing to the fact that at least a year had elapsed before signs of deafness developed, Kay believes that these are undoubtedly cases of "late hereditary syphilis." Each of these children was put on ascending doses of potassium iodid, reaching 35 grains, three times a day. The general result has been good

Venereal Campaign in Paris District of A. E. F.

Joseph Earle Moore, Baltimore (Journal A. M. A., April 24, 1920), shows that, by the use of social hygiene and disciplinary measures, the annual venereal disease rate of the Paris district of the A. E. F. was reduced from an average level of 313.5 per thousand (for the first five months during which no special steps were taken to combat the evil) to a level of 142.4 for the following nine months. If the first two months of this second period are disregarded, since this length of time was necessary for any measures to take effect, the average rate was reduced to 113.6. This figure (113.6 per thousand) represents the lowest level attained by the repressive and substitutive measures outlined. However, during the next four months, by extending the use of, and improving the quality of, prophylactic treatment, a further reducton to an average level of 94.6 per thousand was accomplished, in spite of the fact that during this period the rate throughout the A. E. F. at large was gradually rising.

Gynecology and Obstetrics

Robt. E. Seibels, M. D., Department Editor

Obstetric Examinations.—It has been the custom of obstetricians to make pelvic examinations of their patients with more or less frequency before labor commences and every so often during the first stage of labor. While it is essential that the accoucheur should know the relative size of the true pelvis, the condition of the cervix and the presenting part, pelvic examinations during the later months and after the onset of labor are a source of possible infection which must be taken into very serious consideration. Especially if any dystocia occurs requiring an obstetrical operation—cesarean section or forceps for example—the question of contamination of the birth canal by the examiner is a most serious one. For it is most difficult even under the best circumstances to be assured that the hand has not carried any pathogenic bacteria into the vagina.

These considerations have led obstetricians to depend more and more on an initial examination early in the case to search for malformations or other sources of dystocia and to make no more pelvic examinations until the onset of labor—even then, a rectal carefully made will show all that can be learned by the other route. The cervix can be palpated very readily and its relative softness and its dilatation made out. Combined with careful abdominal palpation and auscultation one can, by rectals, manage the average delivery with a minimum of chance for contamination of the vagina. This method has long been recommended where asepsis is uncertain and many of those who have used it to any extent prefer it in all cases.

Cancer of Cervix: Its Treatment.

Robert M. Lewis, Baltimore (Journal A. M. A., April 24, 1920), reports a case of constant bleeding from the uterus for one and one-half years. The patient was unable to tell whether she had menstrual periods or not, as the flow of blood was so continuous and free. There was no loss of weight and no pain or discomfort anywhere. There were no local symptoms referable to the bladder or rectum and no indigestion or cough.

The general physical, as well as the other routine examinations, revealed nothing to contraindicate operation. The abdominal examination was entirely negative. No glands were palpable in the inguinal regions. Pelvic examination revealed a moderately relaxed outlet. The cervix was small and firm; from the externals as a small bud of bleeding granular tissue protruded. This was removed with forceps for microscopic examination. A frozen section cut within a few minutes of its removal showed that this was squamous cell carcinoma. The body of the uterus was in good position, normal in size and shape, and freely movable. The ovaries were normal. The broad ligaments were not infiltrated. Lewis performed an abdominal panhysterectomy in June, 1916, the parametrium and paracervical tissues being removed widely. No enlarged glands were found. Convalescence was uneventful and the patient has remained well to this day. Lewis believes that the ideal treatment of these patients is first to treat the condition in the early stages thoroughly with radium, and then to perform the usual wide panhysterctomy. He believes that the results will not be so good if the procedure is reversed.

Patency of Fallopian Tubes.

By means of experiments carried out on extirpated uteri with the adnexa intact, I. C. Rubin, M.D., New York, was able to determine (Journal A. M. A., April 10, 1920), that oxygen passed into the uterine opening of the tubes escaped through the fimbriated end. When the tubes were ligated or were occluded by pathologic processes, this did not follow. In the first patient subjected to this procedure, Rubin also established the patency of the fallopian tubes. The abdomen became visibly distended and the pneumoperitoneum was confirmed by the roentgenographic examination. The symptoms associating the gas inflation by way of the uterus were the same as those described for the method by direct abdominal puncture. Altogether, fifty-five patients were examined by means of oxygen inflation of the uterus. There were absolutely no untoward symptoms or sequelae. The patients with two exceptions, were ambulatory, and were allowed to go home from within a few minutes to one-half hour after examination. In some cases the result confirmed the clinical diagnosis of probably closed or patent tubes. In a number of cases the tubes were proved to be open when there was reason to suspect they were closd by disease, while in others the tubes were demonstrated to be occluded when they were believed to be normal. The method had practically the value of an exploratory laparotomy for purposes of determining the continuity of the lumen of the fallopian tubes.

Orthopædics

Alonzo H. Myers, Department Editor

While attending the Orthopaedic Section of the American Medical Association held in New Orleans recently, I was greatly impressed by the large number of papers and discussions on fractures and bone grafting. This noticeable change on the subjects of papers in the Orthopaedic Section is of course explained by the fact that during the recent war the Surgeon General depended largely upon the Orthopaedic Surgeon for the bone work and as a result this special line of surgery has been highly developed. However, there are many general surgeons doing bone work just as they did previous to the war, and I feel that a few points which I picked up with reference to bone grafting will prove of interest to us all.

Discussing the history of bone grafting:

Among the conditions which determined successful grafting of bones or bone fragments, we must place first Asepsis. Grafts answer best which are taken from patient's own body; the closer the genetic relationship of the graft-host, the better is the graft likely to answer. The graft-host should be young and those grafts do best which contain all three elements of bone—bone, periosteum, and medullary tissues. The graft bed must be free from blood clots, washing in normal saline damages the vitality of a graft. A graft must be placed so that the contact is effected by adjacent fragments; the contact must be firm and so designed that the graft becomes early subject to the mechanical stresses and strains of the part.

Numerous experiments as well as a sufficient amount of clinical experiments

have convinced us that boiled bone is an excellent substitute for the Autogenous graft. The graft advantage lies in the chance to model the graft beforehand and save time during the operation. (Ivory is also used admirably in this advantage.) In this way plates and screws have been made for fractures, long screws for fractures of the neck of the femur, grafts especially modeled for spinal operations, etc.

The observations that cancellous bone will be vascularized and permeated by living osteoplasts much more quickly than dense bone of the cortex holds true also for boiled bone. Hence for plastic operations the material should be as porous as the required strength will allow. The concensus of opinion is that too much importance has been placed upon the origin of the bone cell as a vital factor in bone repair. Bone is mesoplastic in origin; in its repair calcium salts are deposited on the intracellular elements of the connective tissue, forming new bone. The connective tissue all by metoplasia becomes a bone cell. Periosteum is connective tissue, hence prone to form bone, but it is not the only connective tissue that has this function.

NEUROLOGY.

R. F. Leinback, M. D., Department Editor.

Somatic Causes of Psychoneuroses

Charles L. Dana, New York (Journal A. M. A., April 24, 1920), maintains that the psychoneuroses are organic as well as psychic conditions. Being thus in part neurologic diseases, he thinks it would be a disaster if neurology were to abandon the study of this exceedingly numerous and sorely handicapped group of patients. If this should happen, they would go first perhaps to various types of psychotherapeutic specialists and perhaps later to clinical psychologists and pedagogues. The last is already happening. The management of these cases calls for the closest observation and the most accurate study of the personality, but also of physical, metabolic and endocrine defects. It is, therefore, to trained neurologists conscious of their responsibilities and familiar with the best technical methods that the care, and the prevention, of psychoneuroses belongs.

State Medicine

L. B. McBrayer, M. D., Department Editor

A Plea for a State General Hospital Articulated With County General and Other Hospitals and the Completion of Medical Education in the University of Missouri.

Dr. Frank G. Nifong, Columbia, Missouri: "Modern medicine and the hospital idea in medical service are inseparable. Hospital and health service is one of the functions of the state for the promotion of the general welfare and it is also the business of the local communities and counties. This matter is not second in importance to education. The county general hospital is a crying need for our more populous counties, no less needed than in our cities. The obligation of the state to give its citizens higher and technical education is a well established principle. The general welfare can be promoted in no better way than by furnishing the best possible medical education to its citizens. We need a great medical center in Missouri University both for the undergraduate and for the graduate work. The medical department of the University should co-operate with the State Board of Health in all its activities. To accomplish the various purposes, the State Medical Department must have adequate clinics and hospitals. A State General Hospital articulated with the various county and other standardized hospitals would furnish exceptional and unique clinical facilities. This would bring all the people and profession of the State into intimate touch with all health matter and health service."

This listens as though it were written for North Carolina.

Education of the Child in Hygiene and Into and Up to Health.

Every one interested in our educational system and in education in concrete should read the President's Address by Dr. Wm. C. Braisted, President of the American Medical Association and Surgeon General of the United States Navy, at the recent meeting of the A. M. A. in New Orleans. It is published in the journal of the A. M. A., issue of May the 1st, 1920. Dr. Braisted discusses lucidly our duty

to the child and makes the point that the State should teach the child hygiene and health in the true and broad sense of the term, first. After that would follow the outline of study as it exists at present. He puts it this way: "Sound health the first requisite of a liberal education . . . Public schools as natural health center."

This address is so good that it cannot be reviewed and this is only written to insist on your reading it. The State has not yet visualized its duty to the child—our future citizens.

X-Ray and Laboratory

Robert H. Lafferty, M. D., Dept. Editor.

"Rapid Staining Technic for Malaria Plasmodium."

The Bulletin of the Porto Rico Medical Association publishes in the March, 1920, issue an interesting article by Dr. Igaravidez, which describes experiences with the different staining methods in vogue to decide which method is the most practicable and reliable. His final conclusion is in favor of the Tiedmann technic, slightly modified. A 1 per cent solution of methylene blue in methyl alcohol is made, and a similar solution of eosin, and these are kept in dark colored vials. When ready to use, 10 gm. of each solution and 10 gm. of methyl alcohol are mixed, and 10 or 15 drops of the reagent mixture are poured on the smear of blood dried in the air. Then 20 or 30 drops of neutral, filtered water are added immediately, and the slide is tilted to insure the complete blending of the stain and the water. In one and one-half minutes—counting from the moment the stain had been dropped on the specimen—the preparation is rinsed rapidly with water and dried with blotting paper, when it is ready for examination under the microscope. The water used does not have to be distilled water but it must be neutral; he prefers rain water for the purpose. Filtered water from any source can be used, provided it is neutral. He tests for this by adding a small amount of pulverized hematoxylin to a test tube containing 100 c.c. of the water and agitating gently. If the water turns yellow, this shows acidity, while a deep violet tint indicates that it is alkaline. A light violet tint indicates that the water is neutral and suitable to use. By adding a few drop of a 1 per cent solution of sodium bicarbonate to the water and then a little more hematoxylin, comparing the tint with a control tube, the neutral reaction can soon be realized. This staining technic shows up all the forms of the plasmodium of malaria and other parasites of the blood, and it is excellent also for the differential leukocyte count. In conclusion he emphasizes that with this simple and reliable technic any practitioner can examine blood specimens, himself, without expensive equipment or relying on a distant laboratory.

Hospitals and Sanatoriums

John Q. Myers, M. D., Department Editor

The second annual convention of the North Carolina Hospital Association which was held in Charlotte, April 19, 1920, was an eminent success. The program was fully carried out. The keynote of the convention was "The Standardization of Hospitals and the Ownership of Hospitals." The statistics show that in North Carolina about 96% of the hospitals are privately owned. This condition should not exist.

At a recent meeting of the American Medical Association held in New Orleans, the constitution and by-laws were changed so that the section providing for a Committee on Medical Education be changed to read a Committee on Medical Education and Hospitals. To this committee all matters relating to medical colleges, medical education and hospitals shall be referred. The American College of Surgeons is making a survey of the hospitals. A report will be forth-coming upon which to establish a basis of standardization of hospitals.

The following officers were elected:

President, Dr. J. M. Parrott, Kinston, N. C.

First Vice-President, Dr. J. R. Alexander, Charlotte, N. C.

Second Vice-President, Dr. P. R. McFadden, Concord, N. C.

Third Vice-President, Miss Gilbert Muse, High Point, N. C.

Secretary-Treasurer, Dr. John Q. Myers, Charlotte, N. C.

Miss Blanch Stafford of Winston-Salem, President of the North Carolina Nurses' Association, was elected to honorary membership.

HOSPITALS OF NEW YORK CITY TAKE PROGRSSIVE STEP.

As the outcome of a meeting of the staffs of the Department of Public Charities in New York, held at the Academy of Medicine on the evening of January 23, plans were adopted for a review each month of the clinical records of these hospitals by their respective staffs. The medical profession in New York has long been aware that these hospitals maintain adequate case record systems for all patients; also that the laboratories of these hospitals are well equipped, well managed, and dependable. The one thing that remained to do was to institute staff meetings at these hospitals at which clear, concise reviews of what each staff had accomplished for the right care of its patients each month should be fearlessly considered. These staffs agreed unanimously that the time had come for such meetings, and without a single note of dissension, the plan was carried through.

The group controls about 7,000 beds.

Good will and enthusiasm characterized the entire procedure. Both at the meeting held in the Academy and at other sessions at which the matter was considered, Commissioner Bird S. Coler sought the advice of the superintendents of the hospitals and of the staffs, and when, with the approval of all concerned in the new plan, he issued the order to put the plan into effect, he struck at the very purpose of the hospitals. He began his order as follows: "Pursuant to the end that all patients in the hospitals under the direction of the Department of Public Charities receive the most efficient care known to the respective staff of the hospitals, the following orders are issued."

Following this statement, the Commissioner outlined the plan of the staff meetings. It is to be expected, naturally, that with further experience the data reviewed each month at the staff meetings will be adjusted to the needs of each institution.

Gastroenterology

Frank R. Ruff, M. D., Department Editor

Patients with digestive disorder should be thoroughly examined early. There are many cases between the ages of 15 and 22 who are beginning tuberculosis, the first symptoms being loss of appetite and indigestion. Those cases over 38 should be studied carefully for early cancer, low hemoglobin, loss of weight and indigestion should make you suspicious of malignancy.

Abdominal crisis may be mistaken for beginning gastric ulcer.

Nervous chills coming after sun-down or after heavy dinner, or an exciting show are often indicative of bile tract trouble.

Hemorrhage from the stomach is not always from ulcer or cancer; it may come from oesophagical varices.

Do not starve digestive cases, you will weaken them so much that they will soon be unable to rebuild themselves. Study the case and regulate the diet, so there is practically no mechanical or chemical irritation to the delicate digestive wall.

Caution all patients against the use of cold drinks.

Caution patients about eating too much protein—it may cause hyper-tension and nephritis.

Do not allow much salt in ulcer cases, as that is the chief source of hydrochloric acid. The acid stimulates the activity of pepsin, and pepsin will prohibit the healing of the ulcer.

Peptic Ulcer.

The interpretation of the roentgen-ray findings in the diagnosis of peptic ulcer, the difficulties that may be encountered and the consequent errors are the subject of an article by C. W. McClure and Lawrence Reynolds, Boston (Journal A. M. A., March 13, 1920). Temporary muscle spasm may give rise to a false diagnosis, calling for a new examination. This may show, especially if atropin has been given to the physiologic limit, that this spasm has disappeared, as in the case reported, which shows the value of cooperation between the clinician and the roentgenographer. The typical symptoms of ulcer were lacking but the roentgen-ray findings

were characteristic. In another case reported, the possible existence of an active ulcer cannot be denied: but the rapid recovery under treatment makes the correctness of the diagnosis problematic. When such questionable cases occur it seems justifiable to allow ambulatory treatment, and save the patient the hardship of giving up business, provided he can be kept under close observation. Still other cases are mentioned in which the findings were distinctly those of cancer, though operation proved it to be simply ulcer. Such cases demonstrate that: "1 Cases occur in which either the presence of an ulcer is not diagnosed, or in which the presence or absence of an ulcer cannot be definitely determined except by exploratory operation. 2. It is necessary to interpret roentgen-ray findings in relation to the data obtained by careful and thorough clinical studies. 3. In certain cases roentgen-ray findings are more confusing than helpful in diagnosis. It is obviously necessary for the internist to become familiar with roentgen-ray findings. But he can scarcely hope to become as adept as the expert roentgenographer, for roentgenology is specialized work requiring much knowledge, large experience and great skill on the part of the physician engaged in it. The best results are obtained by the proper cooperation of clinician and roentgenographer. The proper cooperation consist: 1. On the part of the roentgenographer, in the accurate description of roentgen-ray findings present, portrayal of the most probable conditions which they represent, and the exclusion of artefacts. 2. On the part of the clinician, in the integration of roentgen-ray findings into symptomatology and diagnosis." The article is illustrated.

Peritoneal Inflation.

Armitage Whitman, New York (Journal A. M. A., April 10, 1920), describes his sensations following the injection of oxygen into his peritoneal cavity. The experiment was a failure in regard to the purpose for which it was undertaken. In the erect position, the gas once having risen to the subdiphragmatic spaces, it was impossible to exert sufficient pressure from below to force the liver up and squeeze the gas out. Contraction of the abdominal muscles from below upward also primarily reduced the space into which the gas could escape. The actual injection of the gas was practically painless, and its presence in the peritoneal cavity was attended by none but mechanical disturbances incident to its physical volume. These mechanical disturbances were of such an unpleasant and disabling nature that, Whitman says, the method should not be employed without their due consideration. The patients should be warned of what they might reasonably have to expect, and be prepared to spend from three to four days in bed following the injection. In nervous individuals the consequence might be considerably more disturbing.

Nurses Corner

Edith M. Redwine, R. N., Dept. Editor

Perhaps at no time in the history of nursing have so many nurses been gathered together as were present in Atlanta April 12-17, at the joint convention of the three great national nursing organizations, viz.: the American Nurses Association, the National League of Nursing Education and the National Organization for Public Health Nursing, there being more than three thousand present at these meetings.

At the opening session Miss Clara D. Noyes, president of the American Nurses Association, presided. In her response to the address of welcome, by the Mayor of Atlanta, Miss Noyes reviewed the field of nursing activities referring to the many changes that have taken place within the past two years and of the great unrest which has invaded the nursing profession.

Miss S. Lillian Clayton, president of the National League of Nursing Education, spoke of the large demand and scant supply of nurses as compared to former years, mentioning the causes supposed to be responsible for the disparity between such supply and demand.

Miss Katherine Tucker, president of the National Organization for Public Health Nursing, spoke of the problems affecting the health of the children, their rights to health and healthy parents, the fight against tuberculosis and social disease and fatigue as affecting efficiency.

Miss Munk, of Denmark, responded for that country; Miss Jean Cunn for Canada, and the Baroness Mannaheim for Finland, stating "that she had come

to this convention because it was her first opportunity to represent her country as a free nation at such a meeting."

The following telegram from Mrs. Helen Hoy Greely, of Washington, D. C., counsel for the American Nurses Association, made known the interesting fact that rank has been given to nurses:

"We have met the congressmen and they are ours. The United States senate has given rank to nurses by unanimous vote without one voice of protest. It is a good thing to give thanks to the Lord."

In a paper read before the National League of Nursing Education entitled, "State Board Examinations; What Are Their Common Defects and How Can They Be Improved," Miss Kate Douglass, assistant inspector, Nurses Training Schools of California, emphasized the fact that "though all but three States require registration by law there are still many defects in the system and the examinations as conducted at present are not a fair test of the nurse's ability. Examinations given now are of doubtful value, for by written examination we endeavor to find out in two days what it has taken the student nurse three years of training to learn."

Miss Ida May Hickoff also read a valuable paper on this subject; grouped under three headings:

(a) The Relation of the Examination to the Development of the Curriculum.

(b) Grouping of Subjects for the Written Examination; Character of Questions.

(c) Value of the Practical Examination.

Much stress was laid upon the necessity of the practical examination.

Under the title, "What Can Be Done to Encourage Graduate Nurses to Remain in Executive and Teaching Work in Schools of Nursing?" Miss Carrie M. Hall, superintendent of nurses, Peter Brent Brigham Hospital, Boston, Mass., spoke of the living conditions of the nurses and stated that probably the day is not far distant when large enough salaries will be paid to enable the nurses to live outside the hospital.

The American Nurses Association is fostering a fund for the erection of a school for nurses at Bordeaux, to be named after Florence Nightingale and serve as a memorial to Miss Delano and other American nurses who lost their lives overseas in the service of their country.

The object is to raise $50,000 for this purpose. The committee in charge of this fund reported the amount raised to date $39,522.

"Newer Fields of Public Health Nursing," was one of the important questions before the National Organization for Public Nursing, many phases of the subject being discussed by various members of the organization.

Miss Annie Boyle, of the division of venereal diseases of the United States Public Health Service, read a paper on "The Public Health Nurse and Venereal Disease Control." Miss Boyle spoke of the inroads being made upon the health of the nation by these so-called social diseases, and showed how it was peculiarly fit that the public health nurse should seek to control this menace.

In a paper entitled, "The Public Health Nurse and the Extension of Acute Communicable Disease Nursing in Its Relation to General Work." Miss Glory H. Ragland, superintendent of the St. Louis Visiting Nurses Association, discarded the old time theory in regard to the liability of the nurse to transmit disease from one patient to another.

Miss Ragland stated "that any properly trained nurse may handle contagious diseases and go anywhere without danger to others." "The hands and the things carried in the hands are the great carriers of the disease. The nurse who has cases of cross infection is not fit to be a nurse."

Miss M. L. Woughter, executive secretary, Association for Prevention and Relief of Heart Disease, spoke of the need for "more cardiac clinics, more provision for the care of adenoids and tonsils, more provision for dental care, opening houses for cardiacs and more co-operation from school boards." She presented statistics from the army, schools and insurance companies to show the percentage of deaths from heart disease, and stated that more than 2,000,000 people in the United States have some form of heart disease.

The next joint convention of these organizations will be held at Seattle, 1922.

Forty-five nurses from North Carolina attended the convention in Atlanta, forty-three being present at the North Carolina dinner given at the "Nurses Club." Miss Mary L. Wyche of Greensboro presided at this dinner.

The eighteenth annual convention of the North Carolina State Nurses Association will be held in Charlotte, Selwyn Hotel, June 1-4. The North Carolina League of Nursing Education will also convene at this time. Questions of the utmost importance to the nursing profession will be discussed at these meetings.

The State Board of Examiners for nurses will meet in Raleigh June 8-10 for the purpose of examining applicants for license to practice the profession of nursing in North Carolina. Yarborough Hotel, headquarters.

Public Health

W. S. Rankin, M. D., Department Editor

American Public Health Association to Celebrate Fiftieth Anniversary.

Next year the American Public Health Association will conduct its 50th annual meeting. An interesting circumstance is that Dr. Stephen Smith, the founder and first president of the Association, will, if living, at that time be approaching his 99th birthday. Dr. Smith is still hale and hearty and possesses his faculties to a remarkable degree. It is his intention to read a paper at the meeting referred to. His vigor at a ripe old age exemplifies the resuts of sane living.

The American Public Health Association was founded at New York city in 1872. Until a few years ago it remained a strictly scientific body, somewhat on the order of the royal societies of Europe. More recently the membership has been broadened so that those may join who have a more general interest in public health, including such workers as health officers, laboratory men, school medical inspectors, industrial hygienists, public health nurses, physicians interested in preventive medicine, etc.

Members of the Association receive the American Journal of Public Health and the A. P. H. A. News Letter monthly, together with the customary Association advantages. Dues are $5 per year.

The American Public Health Association stands as an honored institution which during the years has been tremendously influential in bringing the new methods of public health into use. Certainly no health worker can afford not to be a member, or to miss its publications.

News Items

Dr. Ira J. Haynes, of Richmond, Va., has been elected recently, vice-president of American Mutual Drug Co., manufacturing pharmacists, of Richmond.

Mr. Inman, who is now manager for The Powers & Anderson Surgical Instrument Co., Inc., of Norfolk, Va., wishes to thank the profession that were in attendance at the Charlotte meeting for the courtesies extended him and for the orders placed with him at the meeting. Mr. Inman will be glad to see at any time any of the profession while they are visiting Norfolk and he asks that they make the Powers & Anderson Surgical Instrument Company Store, No. 2 Arcade, Norfolk, their headquarters while in the city of Norfolk.

New Uses for Old Product.

It is an old saying that there is nothing new under the sun. There are many new uses for old things, however, and new combinations. Benzyl benzoate, as a chemical compound, has been recently found to possess marked therapeutic qualities although used solely for a long time and to a large extent in the perfume industry. For medicinal purposes benzyl benzoate should be absolutely free from chlorine and phosphorus.

Benzyl benzoate is considered a safe antispasmodic and is so reported by Macht of Johns Hopkins Medical School, and by Litzenberg. A number of others are also working with this product. Its most noted uses have been found to be in dysmenorrhea, bronchial spasm or asthma, angiospasm, high blood pressure, hiccough, pertussis, biliary and renal colic, spastic constitpation, diarrhea, pylorospasm and enterospasm.

Benzyl benzoate has a penetrating odor and a burning, disagreeable taste. It may produce slight nausea, but there is no record of dangerous or toxic symptoms having developed from its use. Eli Lilly & Company supplies benzyl benzoate in elastic filled capsules containing five minims diluted with an equal part of cottonseed oil.

Book Notices

"Diseases of the Chest and the Principles of Physical Diagnosis," (Second Edition), by George W. Norris, M. D., Assistant Professor of Medicine in the University of Pennsylvania, and Henry R. M. Landis, M. D., Assistant Professor of Medicine in the University of Pennsylvania, with a chapter on Electrocardiograph in Heart Disease, by Edward Krumbhaar, Ph. D., M. D., Assistant Professor of Research Medicine in the University of Pennsylvania. Second Edition, thoroughly revised. Octavo volume of 844 pages with 433 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, $8.00 net.

We are glad to recommend this book as being perhaps one of the very most complete and comprehensive treatises on the subject published.

The authors have tried to teach as much as possible by illustration and have succeeded to a marked degree in making clear the points of practical diagnostic use. They have written rather more than usual on the subject of diagnostic acoustics and make every point clear before they go on to the next.

"Crile and Lowers Surgical Shock" (Second Edition of "Anoci-Association"). Surgical Shock and the Shockless Operation through Anoci-Association. By George W. Crile, M. D., Professor of Surgery, School of Medicine, Western Reserve University, Cleveland; and William E. Lower, M. D., Associate Professor of Genito-Urinary Surgery School of Medicine, Western Reserve University, Cleveland. Second Edition of "Anoci-Association" thoroughly revised and rewritten. Octavo of 272 pages with 75 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, $5.00 net.

In this second edition the authors have embodied the accumulated experience of the civilian clinic and the army hospitals of France. They present much corroborative evidence of the soundness of the fundamental principles of anoci-association and its practical application.

The chapter on "The Cause and Pathology of Surgical Shock" is quite exhaustive and complete, as is also the chapter on "Treatment of Shock."

"Arterio-Sclerosis and Hypertension," with chapters on Blood Pressure, by Louis M. Warfield, A. B., M. D., F.A.C.P. Third Edition, 365 pages. Illustrated. C. V. Mosby Company, St. Louis, Mo. Price $4.00.

Dr. Warfield has made this book represent largely his own ideas and conclusions as deduced from his wide experience and close observation.

The personal and "human" element thus injected gives it a special interest to all readers. With it all he handles his subject most concisely and clearly explains the anatomy and pathology of the circulation, the technique of ascertaining the blood pressure and what blood pressure indicates. After explaining how to arrive at a diagnosis he continues with practical suggestions as to treatment and prognosis.

This book will be of interest to all medical men but especially so to the general practitioner and those who have to do with life insurance examinations.

"Sexual Impotence," by Victor G. Vecki, M. D., San Francisco, California. Sixth edition. 12mo of 424 pages. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, $3.00 net.

In his characteristic style the author handles in a most sane and helpful manner this subject which so vitally influences every human being, as individuals, and as society.

Not only does Dr. Vecki point out the pathologies of the procreative functions and instincts but he suggests remedial measures. He places his subject in its proper relations in the every day work of the physician.

The instinct of "perpetuating the species," if it does not actually predominate the instinct of "self preservation," certainly plays a most important role in bringing clients to the doctor's door. To handle these cases successfully then is just as important as to diagnose and correct a "fever" or "indigestion."

This Sixth Edition has been revised and presents the last (latest) word on the subject.

NEW AND NON-OFFICIAL REMEDIES.

During March the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

Elixir Barbital Sodium—Abbott Laboratories.

Barbital-Chiris—Antoine Chiris Company.

Barbital Sodium-Chiris — Antoine Chiris Company.

Schick Test (Gilliland) — Gilliland Laboratories.

Ampoules Corpora Lutea Soluble—Hollister-Wilson Laboratories.

Extract-Hollister-Wilson — Hollister-Wilson Laboratories.

Ovarian Residue-Hollister-Wilson—Hollister-Wilson Laboratories.

Condensed Vitalait—Vitalait Laboratory of California.

Anesthesin-Calco—A brand of benzocaine complying with the N. N. R. standards (see New and Nonofficial Remedies, 1920, p. 33). Calco Chemical Company, Boundbrook, N. J.

Gonococcus Vaccine (Polyvalent) (Gilliland)—A gonococcus vaccine (see New and Nonofficial Remedies, 1920, p. 283) prepared from a number of strains of M. gonorrhoea Neisser. Marketed in packages of four syringes containing, respectively, 250, 500, 1,000 and 2,000 million killed gonococci; also in packages of four 1 cc. ampules containing, respectively, 250, 500, 1,000 and 2,000 million killed gonococci. The Gilliland Laboratories, Ambler, Pa.

Ovarian Residue—Hollister Wilson—The residue from the fresh ovary of the hog, after the ablation of the corpus luteum. It is used for the same conditions as the entire ovarian substance (see New and Nonofficial Remedies, 1920, p. 201) but is claimed to be somewhat more stable. Hollister-Wilson Laboratories, Chicago (Jour. A. M. A., March 6, 1920, p. 675).

Phenacaine — Holocaine hydrochloride of phenetidyl-acetphenetidine, a basic condensation product of parphenetidine and acetparaphenetidine. Phenacaine was first introduced as holocaine hydrochloride. It is a local anesthetic like cocaine, but having the advantage of a quicker effect and an antiseptic action. Five minims of a one per cent solution when instilled into the eye are usually sufficient to cause anesthesia in from one to ten minutes.

Phenacaine-Werner—A brand of phenacaine complying with the N. N. R. standards. Werner Drug and Chemical Company, Cincinnati, Ohio (Journal A. M. A., March 27, 1920, p. 889).

Propaganda for Reform.

Green's Dropsy Remedy—This "treatment" is sold on the mail order plan and comes in the form of large balls or boluses, some smaller balls or boluses and, in some cases, includes "Tonic Tablets." The balls are taken, followed by substantial doses of magnesium sulphate. The A. M. A. Chemical Laboratory reports that the boluses, large and small, appear to contain powdered squill as their chief medicinal ingredient. The laboratory further reports that the "Tonic Tablets" contain an iron salt, probably dried ferrous sulphate, as the chief medicinal ingredient. Obviously, there must be no small amount of danger for a person in a dropsical condition to dose and drastically purge himself. The product is one that has no legitimate place among home remedies (Jour. A. M. A., March 6, 1920, p. 689).

Stannoxyl—On the assumption that tin workers were less troubled with boils than the average person, two French investigators proposed the use of tin compounds in the treatment of staphylococcus infections. Based on their work, a proprietary preparation—Stannoxyl—has been placed on the market with the claim that it is "composed of stannous oxid and specially purified metallic tin." Absurdly extravagant and unwarranted claims are made for the product (Jour. A. M. A., March 6, 1920, p. 692).

Hepatola—This was declared a fraud by the federal authorities in 1917, and the Hepatola Company was denied the use of the United States mails. It is still being sold in Canada. Hepatola is one of the many treatments claimed to remove gallstones. Analysis showed Hepatola to be the same old gallstone trick—that of giving the patient a large dose of bland oil and following it up with a saline. The soapy concretions that are voided following this dosing are the "gallstones." Hepatola is essentially the same as "Fruitola" and "Mayr's Wonderful Stomach Remedy" (Jour. A. M. A., March 13, 1920, p. 752).

More Misbranded Drugs—Boericke and Runyon's santonin and calomel tablets, acetanilid and quinin compound tablets, potassium iodid tablets, and morphin sulphate tablets did not contain the claimed amount of drug, and some aspirin tablets contained no aspirin. Sulferro-Sol was falsely claimed to cure pellagra, dyspesia, indigestion, etc. Santal Pepsin Capsules was falsely claimed to be a specific for all bladder trouble, gonorrhea, gleet, inflammation of the ovaries, rheumatism, Bright's disease and a number of other conditions (Jour. A. M. A., March 20, 1920, p. 818).

Platt's Chlorides—The Council on Pharmacy and Chemistry reports that Platt's Chlorides is inadmissible to New and Nonofficial Remedies because its composition is uncertain and indefinite, and because the claims made for it are exaggerated and misleading. The A. M. A. Chemical Laboratory analyzed a specimen purchased in 1911 and one purchased in 1919, and reports that while both contain aluminum salt and zinc chlorid, they differ considerably in composition and the latter contains a very small amount of mercuric chlorid. In the past, the advertising for Platt's Chlorides has suggested more or less directly that, as chlorinated lime (bleaching powder) may be made to give off chlorin gas which disinfects, so the air in a room may be disinfected by evaporating Platt's Chlorides. From the analysis of Platt's Chlorides it is evident that when the preparation is evaporated under ordinary conditions, only water vapor escapes. Whatever disinfecting or germicidal action the preparation may possess is exercised only when the solution is brought in direct contact with the substance to be disinfected. The aluminum and zinc salts present may be useful as deodorants, but they are not effective as germicides. The small amount of mercuric chlorid is hardly to be considered as materially increasing its efficiency (Jour. A. M. A., March 27, 1920, p. 903).

Persons in rural communities live longer than their city cousins. Rural males in the United States have an average expectation of 1.8 years more than city males, and rural females 1.3 years more than females living in urban centers.

Miscellaneous

Anthrax.

A man, aged 18, clerk in a mining office, noticed a small nodule on the left side of the neck just below the ear. Swelling of the neck began immediately. The following day, he consulted the physician at the mine and hot compresses were applied. Twenty-four hours later the symptoms had progressed rapidly. When Gerald R. Allaben, M.D., Buhl, Minn. (Journal A. M. A., April 10, 1920), saw him the temperature was 104 F.; the pulse, 130, and respiration, 28. There was extreme swelling of the neck and face extending around to the right side and down to the left breast, and marked edema of the throat involving the uvula. Breathing was embarrassed and noisy, and there was great difficulty in swallowing. The patient complained of no pain, except the discomfort from the edema. The blood count revealed 26,000 leukocytes. The urine was negative. The lesion at this time was about the size of a nickel, and distinctly firm and indurated; the edges were raised and dotted with small vesicles containing a clear yellow serum. The center of the nodule was depressed, dark in color, and necrotic in appearance. Smears from the lesion showed anthrax bacilli, some specimens showing the characteristic spore formation. The nodule was thoroughly excised under locan anesthesia. The base was cauterized with 95 per cent. phenol (carbolic acid), and the surrounding subcutaneous tissues were injected with 5 per cent. phenol. A dressing of 95 per cent. alcohol was then applied. Cauterization was repeated twenty-four hours later, and alcohol dressings were continued. The patient's conditon did not improve, however. The edema remained unchanged. The patient became restless and noisy; the temperature remained high, reaching 105 at the last; the pulse grew weak and more rapid; leukocytes increased to 42,000; and death took place forty-eight hours after admission to the hospital, and four days from the onset of the infection. A new shaving brush was the cause of the infection. The patient had bought a new brush one week before, and had used it only twice, the last time being the night

before the appearance of the nodule on his neck. The brush was secured, and sent away for culture, but was apparently destroyed without examination.

Severe Mercurial Stomatitis Caused by Calomel.

An acute case and a case of thirteen years' standing are reported by Archie Ewing Gordin, Jackson, Miss. (Journal A. M. A., April 24, 1920). The first patient took two "liver pills" not knowing that they contained 1 grain of calomel each. On the following day he became salivated. On the third day his gums and tongue became very painful, and saliva poured from each side of his mouth. Feeling very weak, aching in every joint and somewhat nauseated, he became alarmed and summoned a physician. Severe diarrhea, aching in joints, and soreness of the mouth were his chief complaints. There were two black gangrenous streaks, one on each side of the tongue, and several black gangrenous areas on the inner sides of the gums. The entire tongue and mucous membranes were much inflamed. On the fourth day the black streaks on the tongue were increasing, and several small gangrenous areas were noticed on the buccal mucous membrane. The throat was red and swollen, and the patient showed marked tenderness over the jaws. The odor from the mouth was most offensive. The gangrenous areas were cauterized with 50 per cent. silver nitrate solution; eliminative treatment with magnesium sulphate was begun, as was also stimulative treatment with strychnin and digitalis. Chromic acid was used at intervals in place of the silver nitrate to cauterize the gangrenous areas. Cauterization was carried out twice a day. On the fifth day the gangrene continued to spread, involving the entire upper and lower gums, with several gangrenous spots on the soft palate. The condition became progressively worse; there was gangrene of nearly the entire inner surface of the mouth, and the teeth became loosened and painful to the touch. The patient's general condition also became very grave, with a rapid, irregular pulse, weakness and complete loss of appetite; he became very restless and finally sank into semiconsciousness and died on the seventeenth day. The only tissue in the mouth that was not gangrenous was a small strip in the middle of the tongue, about 1 by 6 cm. posteriorly. The gangrene was moist, and extended deep into the tissues underlying the mucous membrane. The other patient, L. G., aged 18, had had malaria when he was 5 years old, and his physician gave him a dose of calomel. The following day he became severly salivated. His condition became progressively worse, with weakness, diarrhea, salivation, and finally gangrene of the entire inner side of mouth. This condition lasted about three weeks, at which time the patient began to improve, and by the end of two months he was able to get out of bed. During the course of the illness his mouth was extremely sore and inflamed, with a profuse saliva. Nearly the entire right cheek sloughed away, and all but one or two teeth became loosened and fell out. The patient gradually improved, but because of soreness was unable to open his mouth. Later, scar tissue formed, making it impossible for mim to open his mouth at all. From the time of his recovery till the present time he had fed himself through a small space, where a tooth had fallen out. A plastic operation was performed to cover up the cheek and to secure motion in the jaws.

Quinin in Influenzal Pneumonia.

Excellent results are reported by A. J. Caffrey, Milwaukee (Journal A. M. A., April 24, 1920), from the use of quinin hydrobromid in the treatment of influenzal pneumonia. It seems to have given more satisfaction than the sulphate, in that the patients seemed more restful, it reduces the fever promptly, and in most instances keeps it under 100 F. Caffrey gives 25 grains for the first dose, 10 grains for the second dose, and continued throughout the course of the disease with 5 grains every four hours. He has never had a complaint of quinin amblyopia or marked tinitus aurium and head noises which patients usually complain of when the drug is used in other troubles. Among twenty-seven patients receiving this treatment with other auxiliary drugs, such as digitalis, artopin and pituitary extract, good nursing, nourishing diet, fresh air, etc., there was only one death.

"Study of Effects of Alcohol from a New Angle"—Dr. C. S. Potts, Philadelphia, does not attempt, in the New York Medical Journal for April 3, 1920, to say anything good of the use of alcohol as a beverage, but he does show that statements of its bad effects on the human race are exaggerated. He also protests against allowing hysteria, hypocrisy and cowardice to influence the settlement of medical questions. It has long seemed to him that if alcohol was nearly as potent a factor in causing mental and physical deterioration as is claimed by many, by this time the world should be peopled almost entirely with physical and mental weaklings. Therefore, the world, instead of progressing, as it has, should have gone backward, and the average length of life should be much less in spite of the increase in knowledge and skill in the treatment of disease. Potts believes that most of the indictments of alcohol are based on the results of laboratory work and the study of statistics, and that such evidence is often fallacious and not consistent with actual experience. He gives biblical, historical and biographic references to prove his point that alcohol does not cause mental and physical deterioration. Speaking on the effects of alcohol in those who do not use it and do not wish any one else to do so, he claims that many such are undoubtedly mentally peculiar. They exhibit a form of bolshevism in that they want to rule or ruin. They alone are right. In furtherance of their views they believe in false statement, villification, and slander of those who do not agree with them. They refuse to believe conclusive evidence (which according to an old definition means insanity). They advocate confiscation and destruction of legally owned property, illegal exercise of police power, and they tempt people to do the things they protest against, so that they can show how wicked the world is. Potts is of the opinion that this intolerant exhibition of superiority deliberately shown by this extreme section is based on a form of egoism; it is a consequence of a psychologic self-gratulation and self-esteem which borders on an obsession and is regarded by some authorities as pathologic. The burthen of his paper is summarized as follows: That alcohol is not necessarily a deterrent to good work and to the attainment of greatness; that the world is not going backward in spite of its long continued use of alcohol, and so far as its use is concerned is in no danger of doing so; that every one who uses alcoholic beverages is not per se a drunkard and unable to do his share of the world's work. He does not dispute that it may be a cause of harm, both from the medical and social point of view, but it also, from the former point of view, may be an agent for good. He believes that legislation influenced by perversion of facts, hysteria, hypocrisy and cowardice is of more danger to the country than alcohol. There never was a time when common sense was more needed and never a time when it was less prevalent.

Editor Charlotte Medical Journal.
Sir:

For the first time in many years a convention of the American Medical Association has not received the publicity usually accorded to the proceedings of this body. It should be important however, for the public to know that at the session just held at New Orleans this body refused to pass a resolution condemning the use of alcohol in the treatment of influenza. Nevertheless this fact has been recorded only in the local journals reporting these proceedings although the previous action of the American Medical Association a few years ago in pronouncing alcohol to be of no medicinal value whatever and only of use in the arts was widely proclaimed throughout the country, if not throughout the world. Likewise the unanimous condemnation of Compulsory Health Insurance was a fact of the greatest importance to the whole medical profession, which has hitherto opposed this measure although it was fathered and nurtured by the most powerful influences in the American Medical Association. This news should be welcome to the medical profession of England, already under a politically imposed form of State Medical Service, and to the English people now threatened with bone dry prohibition.

The fact that the legislature of New York had just rejected the plan for the compulsory hospitalization or institutionalization of drug addicts to the exclusion of every other form of treatment though fully presented to the American Medical Association had no evident weight with this body. By condemning the

ambulatory treatment of drug addicition it thereby approved this plan in its entirety which was presented to it by the same sponsors whose recommendations and limitations the New York legislature refused to apply to the fifteen thousand physicians of this State. How this action will be received when known by the 150,000 physicians of the country remains to be seen.

In effect this recommendation implies the inability of the medical profession or of the police power of the States to deal with the problem of drug addiction without invoking the aid of the National Government. American physicians and surgeons have heretofore contributed their full share to the general fund of medical achievement to the benefit of mankind and to the credit of their profession. Must it now be admitted that in the treatment of drug addiction that the medical profession of this country is so incompetent or so untrustworthy that the control and supervision of the importation, manufacture, distribution and prescribing of opium and its derivatives must be the function solely of the United States Government as recommended in the findings of the Narcotic Committee of the American Medical Association? This committee has only studied this subject for one year. It was appointed at the suggestion and of the plans laid down by Dr. Alexander Lambert of New York then just elected President of the American Medical Association. With the exception of the author of this plan none of those recommending it have had any previous knowledge whatever of the disease of drug addiction or any experience in its treatment, either institutional or otherwise. JOHN P. DAVIS, M. D.

Industrial Blood Poisons.

Some months after the outbreak of war, large users of anilin, finding themselves deprived of their usual source of supply, were compelled to engage in the manufacturing business for themselves. Before manufacturing methods were improved, and the process finally discontinued, a number of benzene (benzol C_5H_6) and anilin intoxications occurred which C. R. Newton, Akron, Ohio, studied at first hand, and the most important of which he reports in this paper (Journal A. M. A., April 24, 1920). It is his opinion, not that benzene and its amino-derivatives possess any very definite cumulative action, but that the anemias of which they are the cause follow a definite intoxication or a series of definite intoxications. It remains to be determined, however, whether or not the inhalation of even minute quantities of benzene vapor from spreading machines, cement cans and other sources would tend to interfere with proper oxygenation of the blood and tissues, even when there is no cell destruction, and thus undermine the worker's resistance to disease.

QUESTIONS AS TO SHAVING OR WEARING A BEARD.

Dear Doctor:

In my medical course, I remember hearing a European specialist say in regard to shaving: "Gentlemen, if you interfere with nature, you pay for it." But I am unable to find any scientific investigation of the question. I am seeking, therefore, facts and opinions from physicians. Will you kindly answer, as soon as possible, the questions below. I may refer to you by name, but only with your permission (kindly let me know).

1. What are the principal injuries to the skin that come from shaving, and the main reasons therefor?

2. What are the general advantages in growing a beard, and the main reasons therefor?

3. To what extent are the beard and moustache a protection to the face. nose and throat from the incidence of diseases in these organs, and the main reasons therefor?

4. Does the habit of shaving increase the chances of neuralgia and other troubles of the face, and the chief reasons therefor?

If you prefer, the reasons can be given briefly, but I should be glad to have you write as fully as you can. Also please mention any pertinent facts and opinions not covered by the questions.

Thanking you for this trouble, I am,

Very sincerely,

(Signed) ARTHUR MacDONALD.

Address:

Arthur MacDonald, The Congressional, 100 East Capitol Street, Washington, D. C.

"After That Attack of Influenza"

The constantly growing number of patients who have never completely recovered from an attack of influenza or pneumonia, emphasize the great importance of giving the utmost care and attention to the stage of convalescence. Every function needs to be supported and stimulated, and the nutrition of the whole body restored as near to the normal as possible. In

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a great many physicians have found so efficient and dependable a means of insuring complete and satisfactory recovery in the majority of cases of influenza, that they have come to employ it as a matter of routine.

Patients who are placed on "Gray's Glycerine Tonic Comp." as soon as the temperature subsides, rapidly regain their strength and vitality. The influence of "Gray's Tonic" as a post-influenzal tonic and reconstructive is shown not only by the prompt and gratifying effect on the whole body that follows its use, but also by the notable freedom it assures from complications and sequelae.

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When you require a drug that will safely and promptly remove fluid accumulation in the most natural way and prevent re-accumulation. When you need a stimulant that will NOT whip up a tried, feeble heart without reducing its load and is free from digitalis dangers and inconveniences, prescribe

ANEDEMIN TABLETS
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which combine Squill active principles, Strophanthus, Apocynum and Sambucus and are non-toxic, not cumulative nor an irritant. They have stood the test of years and grow more popular with the profession each succeeding year.

Samples to physicians.

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When the lactic treatment is indicatad in your work, as will frequently happen, we suggest that you give **B. B. CULTURE**. a trial.

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Discrediting the Simple Life—"Seventy is not really such an advanced age," says Dr. William H. Welch, of the Johns Hopkins Medical School, who has just arrived at that milestone of youth. Modern man, he points out, has improved on the Biblical limit of threescore and ten and added twelve and a half years to the average span of life, though this gain does not apply to those who have passed their fiftieth year.

But the fact for remark is that the human race is living longer at a period of its development when all the corruptions of civilization are conspiring to shorten it. Were not overeating and late hours, pleasure-seeking and the nervous tension of existence, especially in cities, all tending to doom humanity to premature decreptitude and an early grave? The simple life was the thing. Yet it seems that the further man departs from it within reason the longer he lives, while incidentally deriving more enjoyment in the process.

It is one of the mysteries. A perverse and stiff-necked generation has remained deaf to the warnings of its monitors and gone on regardless, working hard and playing hard and extending its expectation of life beyond that of the fathers. Perhaps the explanation is in Dr. Welch's statement that "activity tends to lengthen life." Even if some of that activity is not of a nature censors would approve, it may yet be more beneficial than the stagnation that is apt to attend a too steadfast pursuit of the simple life.—N. Y. World.

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Original Communications

REMEDIAL CONDITIONS IN SCHOOL CHILDREN.*

Margery J. Lord, M. D., Asheville, N. C.

Gentlemen:

You are all interested in health problems and in preventive medicine or you would not claim to be practicing medicine in 1920, and yet I am sure to many of you medical inspection of school children is a new phase of health work. France began this work when, in 1833 she established a royal ordinance decreeing that school authorities should look after the sanitary conditions of the school children. In the United States, Boston was the first city to establish a regular system of medical inspection beginning in 1894 with a staff of fifty physicians. This work has steadily grown until now, medical inspection is provided for by the law in nearly one-half of our States; regular organized systems of medical inspection are found in about one-half of our cities, while some sort of a beginning has been made in nearly three-fourths of them.

With this bit of history to refresh your minds let me now get at the real purpose of this paper. I have divided my paper into three subheads, the first of which is:

1. Educational Handicaps. — These handicaps concern not only the physical welfare of the child, but are an economic problem of every city and State. Here are some facts concerning New York city children. A child with seriously defective teeth requires one-half year more than a non-defective child to complete the eight grades. About one-half of all school children have defective teeth. In the same manner the child with hypertrophied tonsils takes seven-tenths of a year more than he should. One child in four has hypertrophied tonsils. The extra time required by a child with adenoids is one and one-tenth years. One child in eight has adenoids. The pupil with enlarged glands requires one and two-tenths years longer. Nearly one-half of the children have enlarged glands. These handicaps to a child's education therefore become an economical problem and it is a simple matter to compute how many dollars are wasted each year in the futile attempt to impart instructions to pupils whose mental faculties are dulled through remediable physical defects. Conservatively speaking then, we may say that 60% of all school children suffer from such defects and that the instruction given these children suffers a loss in effectiveness of nearly 10% because of physical defects which could be removed. It is indeed very evident that our problem is of real financial importance.

In Bridgeport, Conn., A. C. Fones, D. D. S., has made some interesting and instructive observations. He found in 1912 the cost for re-education in Bridgeport equalled 42% of the entire budget. With this fact staring him in the face and realizing that something could and should be done to better the health of the school children Dr. Fones decided that the most conspicuous defect of the child is the unsanitary condition of his mouth. On examination he found teeth covered with green stain, temporary and permanent teeth badly decayed, fistulas on the gum surface showing an outlet for pus from an abscessed tooth and decomposing food around and between the teeeth. Why go any further in your examination of the child? Right here at the gateway of the entire human system is a source of infection and poison sufficient to contaminate every mouthful of food taken. If Dr. Fones were right in his deductions that the most unhygienic feature of a child's life is its mouth, then clean mouths, sound teeth and toothbrush habit should, to a large extent, rid us of educational handicaps. He has taken up this problem in a very efficient manner, and with a corps of three dentists and twenty-six dental hygienists, he has ac-

*Read before the Public Health Section of State Medical Society, Charlotte, N. C., April 20, 1920.

complished untold amount. There are four distinct parts to his system. First—Prophylactic treatment, or actual cleaning and polishing of the children's teeth and chart examinations of their mouths. Second—Toothbrush drills and classroom talks. Third—Stereopticon lectures for the children in the higher grades. Fourth—Educational work in the homes by means of special literature for the parents. The result of this mouth hygiene has been roughly as follows: In 1918 the cost for re-education in Bridgeport was 17% of the entire budget instead of 42% as it was in 1912. This work is of economic value certainly, but it does not stop there. This change has been a vital one to the self-respect of the pupils and in the advance of the moral conditions of the normal children. In 1912, 1,356 children in grades two to seven, all of whom were in the retarded class and over 14 years old, left school to go to work. In 1918 less than 300, all in grades five and six, received working certificates. In other words the children had been educated to see the value of higher education. They had not been retarded through physical handicaps and become discouraged, but their clean mouths and cleanly habits had given them self-respect which in turn made them wish to really amount to something.

So far I have emphasized the economical side of educational handicaps, chiefly because a mathematical problem may be proved without any questioning and when reduced to dollars and cents health problems become more convincing to a community. You, as physicians, have but to give this matter your serious attention to bring before you the possible wrecks of adult life because of defects which should have been removed in childhood. The mentally deficient, the blind, the deaf, the deformed, under-nourished, anemic specimens, advanced tuberculosis, organic heart trouble and the like.

My second subhead:

2. Medical Inspection.—There is no one present I hope who will not agree that school children have defects which are hindering them from pursuing their studies either because of frequent absences due to illness or actually making them incapable for their work. The first step therefore is to find these defects—to seek out the reason that some children "just can't keep up" with their studies or are absent one week each month. We, as a State, say these children shall go to school, whether they be rich or poor, bright or dull, healthy or sick. Should we not therefore be responsible that the child be in the best possible condition to receive this required education and derive every benefit therefrom? Is it not up to us to remove every possible stumbling block from his path so that physically as well as mentally he will become a well rounded and as nearly as possible perfect citizen of our United States? This is what medical inspection and medical inspectors are trying to do, to back up education with health.

Some may argue that it is the parents' duty to take his child for frequent examinations to the family physician. That would be excellent, but there are three drawbacks. First—The majority of parents would never take the trouble to do this. Second—The family physician when asked to look the child over "chucks" him under the chin and asks a few vague questions, prescribes a tonic and the interview is at an end; without the doctor even looking in the boy's mouth and throat—let alone stripping him to the waist and examining his heart and lungs. Third—The expense, if the physician does examine the child and makes a proper charge—the parents will consider it useless to throw away that amount of money on Johnny "when he really isn't sick."

The medical inspector makes a uniform examination of each pupil and after each examination keeps a record of it and this record is kept in the school building with the child's report cards. There it is in a nut shell, the child's physical standing as well as mental. The physical examination card has room enough to record four examinations on it, thus showing any changes in health throughout the grammar school, at least.

There are many other duties of the medical inspector besides purely the physical examination of the children. His duty in my opinion covers anything whereby the health of the school children will be improved, but as my paper is dealing with the children themselves, I will not wander too far from my subject.

My third and last subhead is my real reason for writing this paper:

3. What Shall We Do With These De-

fects?—I want each one of you to ask yourselves this question. What shall we do with these defects—these educational handicaps revealed to us by medical inspection of our school children? Can we, who are medical inspectors, spend an evening congratulating ourselves on a big day's work because we have examined thirty children and sent cards home notifying the parents that twenty of these children had some defects which we wished corrected at once. This is but a waste of time and paper if we stop here. Our influence must be brought to bear on the parents themselves and they must be made to see the necessity of the treatment advised for their child. Here is where the school nurse is indispensible. She goes to the home, talks to the mother, leaves a health pamphlet and possibly comes away feeling there is no use to waste time in that home, but eventually when she has made four or five visits the parents are convinced that their child should have his tonsils removed or his teeth filled or whatever defect is to be remedied. Now comes the hard part. The parents can afford to pay something and their pride makes them want to, but they know they can't afford a specialist's fee. What is to be done? The medical inspector has found the defect. The nurse has educated the family into being willing for the operation. The specialist will do the operation gladly for nothing, but the people won't submit to that. One way has been provided by the State Board of Health in their tonsil and adenoid clinics. They look on school children as all being equal and make a charge of $12.50 for each tonsillectomy, planning to do enough operations in one day to permit about four children who are too poor to pay to be included and paid for by the $12.50 from the others. In this way the surgeon may receive the sum of $100.00 per day for his services and all expenses of the clinic defrayed by the children themselves. This plan certainly has many advantages and has provided a means where many of the rural children have received surgical aid this passed year, but, like every good thing, this has been criticised. It was thought by some that the sheep and goats should be further separated and the rich made to pay the specialist's fee and hence refused the clinic.

The Buncombe County Medical Society has adopted the following plan:

"The committee appointed by the Buncombe County Medical Society to devise a plan for organizing a tonsil and adenoid clinic in Asheville, begs to submit the following recommendations:

1. That the public at large, regardless of age, including not only those of school age, but those above and below that period have the privileges of the clinic.

2. That the privileges of the clinic be extended not only to the City of Asheville, but to Buncombe County.

3. For the purpose of defining the object and the scope of the clinic that the public be divided into the following classes:

a. Those who are unable to pay a hospital fee.

b. Those who are able to pay a hospital fee and no more.

c. Those who are able to pay a clinic fee of $12.50 and no more.

d. Those who are able to pay more than the clinic fee.

4. In order to provide for those whose means place them between classes a and b, and between classes b and c, and that no one may be denied the privilege of contributing to the support of the clinic according to his means, that flexible limits be placed on class b.

5. That the privileges of the clinic be extended to classes a, b and c.

6. That class d be referred to their family physicians for advice.

7. That each applicant for the clinic must bring from his family physician written statement as to which class he belongs or what fee he is able to pay.

8. That the clinic be held in the three general hospitals of Asheville and Biltmore, North Carolina, all three of these hospitals having generously offered their hospital facilities for the purposes of the clinic, conducted as herein set forth.

9. That all clinic fees be collected by and apply to the support of the hospitals.

10. That the clinics be conducted in the various hospitals from day to day as applicants present themselves, and as facilities permit, rather than in large groups.

11. That the managements of the various hospitals be requested to co-operate in developing further details of the clinic.

12. That the co-operation of city and

county health officers be solicited.

13. That no physician make any charge for services rendered in the clinic."

But we find more defective teeth than we do tonsils and adenoids. We could keep every dentist in Asheville busy filling children's teeth. A dental clinic is just as important as a tonsil and adenoid clinic. Last summer we had a chance to see what the State Board of Health was doing along this line when they sent Dr. Schultz to us, who in six weeks' time based on our local charges did work amounting to $2,500 on our school children. The City of Asheville has already signified their willingness to furnish funds for the equipment of a dental clinic, and it is my hope that next September will see us ready to start the school year with a permanent dental clinic—operated by, if necessary, only a part time dentist, whose salary shall be paid for by both county and city, thus giving the children of the county the same privilege as those of the city.

The school nurses are doing all in their power to prevent dental decay by toothbrush drills and by making it possible for every child to own a toothbrush. From the Prophylactic Company children's toothbrushes, factory seconds, can be secured for the children at six cents each. Many gross of these toothbrushes have been sold to children this year. The Modern Health Crusaders Movement literature published by Dental Manufacturing Company and the Metropolitan Life Insurance Company has done much to interest the children and parents in the proper care of their bodies, the necessity of plenty of sleep for growing children and the value of regular meals composed of nutritous food. All this is doing its part to improve the physical standards of our school children.

To summarize them: Medical inspection began in this country in 1894 and has increased until now three-fourths of our cities have some form of medical inspection. Physical defects which mainly are—decayed teeth, adenoids, hypertrophied tonsils and enlarged glands, are educational handicaps which, if poperly attended to in early child life, would relieve the State of a large financial burden due to the cost of re-education of retarded children. Medical inspection has become a necessary part of preventive medicine practiced by every board of health, but medical inspection is powerless to reach its full value unless a means be provided which will amply and adequately give the public a way to have these defects treated which will bear in mind the fact that all people have a great deal of pride, that very few want to be on a charity list, yet many have a nearly empty pocket book.

In concluding, gentlemen, let me urge you to candid discussion of this paper. I am expecting to learn more from your discussion than you have from my paper.

PUBLICITY AS A MEANS OF PROMOTING EFFICIENCY IN HEALTH WORK.*

R. L. Carlton, M. D., Health Officer,
Winston-Salem, N. C.

A year or two ago the membership secretary of the National Child Labor Committee of New York city said she had a friend who for many years was active in social work and especially in interesting the public in it and that this friend had changed the old adage, "Let not thy left hand know what thy right hand doeth," into another slogan: "Do all the good you can to all the people you can; let everybody know it, and get everybody to help." With this slogan, the speaker, a health officer of a few years' experience, is in full accord. I believe you all will agree with me that, when through our publicity we have reached the people, have interested them in what we are trying to do and the means by which we propose to do something, we want htem not only to say "it's a good work," but we want them to be inspired to do something to help in this work.

To my mind publicity and health education are synonymous terms. I am not sure the secretary of this association intended allowing me this great latitude when he assigned the subject of this paper—but he will pardon me if he did not so intend, if I use the two terms as practically interchangeable.

Health education is not an institution of long standing in this country. It is taking us a long time to realize that health is the one great asset of a nation and should be seriously considered.

*Read at annual meeting of North Carolina Health Officers' Association, Charlotte, N. C., April 19, 1920.

That it is being considered, nation-wide, is amply proven by the campaign against tuberculosis and by the child welfare campaign. These movements have demonstrated that curing is too slow a method of combatting these evils and that better results can be obtained by intelligent care and by controlling predisposing factors—in other words by prevention.

The kind of work which a health department can do will be that which a majority of the people wishes to have done; therefore it is incumbent upon the department to so mould the feelings and knowledge of the individuals of the community that they will give their active support to the health administration.

People get their ideas of sanitation and hygiene from various sources—from tradition which is more often inaccurate than correct; from physicians who will too often be easy going and not really see that their patients get the correct viewpoint as regards personal hygiene or proper ideas of prevention; from newspapers which should be one of the most active sources of health propaganda, but which so frequently carry patent medicine advertisements and great headline news articles concerning some drugless quack healer nearly to the exclusion of statements of local or State departments of health; from the public schools, which are becoming more and more increasing sources of knowledge of public health matters; and, finally, from the activities of the health department which source of knowledge of public health matters to a certain extent includes all the others mentioned. Every health officer should be a teacher and every health department should be a school of instruction setting forth the fundamental principles upon which public health activities are based and making clear, in language simple as the language of the street, if necessary, just what guarding one's health means. Just how it is done and just what the department proposes to do to help the individual and the community to secure and apply those things necessary to prevent disease and to further the cause of good health.

Such instruction has as its objective legislation, the necessary funds, public co-operation and effective carrying out of sanitary regulations.

The means at our command for such publicity or educational propaganda are legion. The newspapers constitute one of the most important means that should be used freely and sensibly. A health officer is fortunate when he can make a personal, confidential friend of the editor or reporter for one or more of the leading newspapers of his town. The papers will generally handle willingly all items of interest coming from the department if written simply and technical terms omitted. Just here let me say only items of interest should be handed out—and this does not mean that some of the activities of the department or that some of the items of public health matters should be purposely covered up—but that all items, even those of statistics and regular reports should be so arranged that they will make an appeal to the public interest—that the public may be taken into the confidence of the department. Statements should be truthful and accurate and of value to the public—never should the department of health reach the point when it considers its duty to be to issue a continuous stream of bulletins, press notices, etc. Under such circumstances sooner or later advice or information not trustworthy will be given publicity. We do not have to go back very many months in our memory to recall just such circumstances when many of the health workers of this country were issuing instructions by the yard as to means of controlling influenza—which instructions in the final analysis frequently did not bear fruit to the credit of the department.

Hand-bills and special bulletins may be often used to advantage if some object is to be presented to a large numbers of persons quickly. For instance as means of announcing the opening of a clinic for tuberculosis, or a baby health station, circulars setting forth just such an item could be distributed through the schools by nurses, by sanitary inspectors, mailed out, etc.

Reprints of extracts from the annual report are of value—especially if setting forth some particular feature such as the rating of dairies furnishing the milk supply, or the rating of food handling places, or mentioning some especial need as additional public health nurses or additional clinics, etc.

Lectures, health exhibits, motion pictures portraying health subjects are all of educational value by being a means of instruction to those in attendance

and also by calling attention to the activities of the local board.

Another means of publicity is the campaign for some special object. The anti-tuberculosis campaigns of education have been one of the chief means of progress in public health work in the United States. The effects of such a campaign are always felt in all other lines of public health work.

Not only are newspapers, hand-bills, posters, bulletins, lectures, motion pictures, special campaigns, means of publicity and education but the hundred and one little things daily coming up in the department of health are to be used with the objective—publicity and education in mind. Every complaint received affords an opportunity to explain the sanitary principle involved; every case of contagious disease is a center for educating the family and neighbors; every case of contagious disease in school affords an opportunity of explaining to parents and children, (our greatest asset) the methods of handling contagious disease; every daily inspection of school children is a means and a valuable one, of publicity for the department and education for the child.

The speaker wishes to mention one or two items now in use in the department in Winston-Salem. The first is our practice of sending a circular letter of definite instructions to parents of children having contagious diseases, especially measles, diphtheria and whooping cough —and calling their especial attention to the dangers that might follow, warning particularly of tuberculosis.

Another custom is that of a monthly department letter to our dairymen. This letter is one of friendly interest in their business and each time calling attention to some particular item which should receive attention. These letters have been of value to all concerned—dairymen, milk consumer and health department.

Another thing we are doing since January 1st which is a particularly good stroke of publicity is the mailing to parents of every child born a certificate of registration of that child's birth, accompanied by a letter of congratulations and a baby record book. We are getting a most wholesome response to this activity on our part—the mother is pleased that we send her baby a book and certificate of registration bearing the gold seal of the city and a blue ribbon and we are pleased that we are assured of her further co-operation.

Does publicity as a mean of efficiency pay? We think most certainly it does and we believe the activities of our own humble department of health bear out this statement. Three years ago we had two public health nurses, no clinics, no tuberculosis activity, practically no baby welfare work, dental clinics for school children were unknown.

Active, persistent setting forth of the needs of the department and of just how we would proceed if given the right kind of co-operation was done. The newspapers helped, literature from our State department and from the United States Public Health Service was used, motion pictures pertaining to venereal diseases were shown, slides illustrating baby clinics were shown, leaflets entitled "Save the Babies" gave a few plain, unvarnished facts; leaflets entitled "Tuberculosis in Winston-Salem" did likewise; the health officer at opportune times appeared before local organizations including the Board of Trade with a few facts and suggestions—the result: legislation, funds and co-operation sufficient to provide seven nurses instead of two, two baby health stations, a central milk pasteurization plant, a venereal disease clinic, a tuberculosis clinic, a dental clinic for school children, a full time medical inspector for schools, other items in the same proportion.

Our conclusion is, that without education concerning health and by this we mean sensible publicity, we can do very little.

SOME RESULTS OBTAINED BY A PUBLIC HEALTH NURSE.*

Miss Clara B. Ross, R. N., Tarboro, N. C.

A beautiful interpretation of public health nursing was made a few years ago by an artist who painted a plaque, showing a woman planting and tending a tree. This interpretation has been adopted by our national organization as our emblem. Can the result of work thus truly symbolized—any educational work in fact—be reduced to rows of figures? Yet rings of growth on the tree can be found by the forester. Improvement in individual, family and commu-

*Read before the North Carolina Health Officers' Association, Charlotte, N. C., April 20, 1920.

nity health as results of a year's plans and work are the rings we are to count.

At the beginning of the year a careful study of the county field and the splendid foundation for public health work built in the two previous years was made, and after hours spent over vital statistics and over county records with the health officer, it was decided that the usual rural health problems, (1) communicable disease, (2) loss of infant life, (3) indifference to the common ailments that sap strength and efficiency, (4) much ignorance as to the relative value of food, (5) seasonal rush of work, (6) lack of modern home equipment and sanitary conveniences, were ours. A few special ones seemed evident from the following facts:

Population: 14,000 white; 21,000 colored.

Staple crops: Cotton, tobacco, corn, peanuts.

No fences, or few; 25,000 hogs and 3,840 cattle listed.

Large farms and many tenant farmers.

The following tentative plan of public health nursing was made:

(1) Instructive nursing visits to all cases of communicable disease reported to the health office and demonstration of nursing care in other cases of illness if asked for by the member of the family giving nursing care.

(2) Investigation and follow up work in the 58 families who had a death from tuberculosis the preceding year—(no easy task among the tenant farmer class).

(3) Prenatal and child welfare study classes were to be organized by a weighing and measuring campaign among the pre-school children, to meet monthly and bottle fed infants and second summer babies were to be visited in their homes.

(4) A strenuous effort to add a colored nurse to the county unit which was composed of health officer, nurse, sanitary inspector and clerical worker.

(5) Work in the schools to begin in September, which may be listed as follows:

(a) Demonstrations of tests for physical defects among school children to new teachers.

(b) Follow up work with physical defects referred to parents by the health officer and in order to do this more intelligently to be preesnt during examination—this follow up work to be done by home visiting.

(c) Weighing and measuring of school children monthly, if possible, and putting class room record on each wall showing under-weight, over-weight and monthly gain.

(d) Meetings with mothers to study cause of under-weight and how to get normal growth and gain for their children.

(e) Health talks to supplement the health crusade which has been put on by the county superintendent and supervisor of teachers and the course of hygiene already well taught by many of the rural teachers.

Subjects to be stressed:

(1) Importance of a balanced diet.

(2) Importance of protective foods, milk, eggs, leaf vegetables.

(3) Economic possibilities of goat's milk in the astern coastal plain.

(4) Importance of correction of physical defects.

(5) One class in hygiene and home nursing in the county seat high school —18 lessons as a part of the home economics course.

This plan was to be considered as a railroad ticket, good for one trip only, with stop-over privileges in a few places and one wreck when near "Influenza Station."

A few results from the various phases will now be cited:

(1) A case of tuberculosis was visited at a farm house; her father, brother, his wife and three small children were found in a comfortable home. Patient was coughing and spitting in a cloth in her lap, but was quite proud of the fact that she could help with the children. The mother of the children was shown the danger to her children and in spite of the busy season, in less than two weeks a porch was screened, the patient put there to sleep and rest. The most scrupulous care was taken of dishes, linen, etc. The patient has progressed with the disease but the family is being protected.

(2) Two children in a family where the mother died of tuberculosis in 1918 were found to be under-weight. Chest examination and sputum test were negative. Temperature was found to be from 99 4/5 to 100 4/5. The boy dropped out of school but the girl's P. M. temperature was taken by teacher for a period of three weeks and found to vary

from 98 3/5 to 100½. Home visits were made and the children are being watched by father and aunt and promised treatment is expected.

(3) The health study classes must be listed as vaccinations that "didn't take," although an important reaction was secured. It is a difficult matter to get mothers together in any center during the heated period, but by using rural school commencements with their all day programs and county club meetings, several hundred children were weighed and measured and checked up. Consultations with nurse and health officer given, copies of "Infant and Child Care" distributed. Many bottle babies were located and the mothers generally were assured that the nurse was in the county to help them.

Dixie Consolidated School featured this weighing and measuring of the pre-school children with other numbers on physical education on its printed program of exercises for the commencement day.

We gained a vision of the day when school trucks shall make a monthly trip to carry the pre-school child and its mother to the school health center, and the day when our six year old will enter school physically fit to do their school work.

(4) A home visit was made to the mother of a little girl who had a squint to advise seeing an oculist. She was waiting until the child was older so that she would not break glasses, but went at once after the explanation.

Another when told about the need for an operation for adenoids was found to be waiting until the child was older.

A child refused his accustomed coffee and asked for milk which he didn't like when he found that he was underweight and wanted to come up to normal.

A high school girl took a quart of milk a day and taught her family to eat cereals as the result of a consultation with the nurse about her under-weight and poor health.

Tobacco beds show an increased number of vegetable plants growing as a health measure—the result of the campaign for more leaf vegetables.

Fiften mothers met the nurse and county demonstration agent at a school to study cause of under-weight, and teachers asked that over-weight also be considered as the children much overweight were slow in school work.

(5) Through the Red Cross Seal Commission a colored nurse was provided for three months and through the Bureau of Public Health Nursing a suitable one was secured. The county and colored people themselves have promised to see that her services are continued for the 21,000 of her race in the county.

One more result that happened because of no plan but that the nurse stopped to ask her way. A tenant farmer, his wife and sister were found grading a $3,000 tobacco frop and showed with great pride that much of it was grade A; also spoke of their cotton. They were living in a typical four-room tenant house, no cow, no garden. There were five children in the two families. One baby five months old, fed on condensed milk, was pitifully malnourished; the other nine months old baby had been breast fed but was being given biscuit and coffee. The family feared it had spinal trouble as it couldn't sit alone. A cow was suggested. The health officer later examined the children and found no organic trouble. After a third visit a cow was purchased and the nurse was able to demonstrate milk modification and teach the family how to handle milk fit for babies. Six months after first visit the babies were both up to normal weight, and older baby was pushing a chair across the porch. The farmer refused to sell, although offered $40.00 more for the cow, because the babies needed her and the whole family felt so much better. A vegetable garden is already planted and was displayed with pride to nurse. Pictures of the babies were taken when found and six months later, and, with the cow's picture between are being used as "Before and After Taking"—an "Ad" for a cow for every tenant farmer.

The results of this very definite success will not end with this family but will influence others.

It is by better individual, family and community health, that we count the rings of growth on our tree.

FINANCIAL EQUIVALENT OF THE PRIVY.*

Mr. H. E. Miller, Director, Bureau of Engineering, State Board of Health, Raleigh, N. C.

The privy is an indispensable institution. Whether or not its presence constitutes a menace or blessing to its users and their neighbors, depends upon the manner in which it is constructed and maintained. Sanitarians have demonstrated the effectiveness of the sanitary privy as a factor in the reduction of fecal bourne disease. Although most remarkable, it is generally recognized that, wherever improved sanitary conditions have effected a decrease in the prevalence of fecal bourne disease, a general decrease of other diseases not commonly recognized as fecal bourne, occurs.

Evidence of this character is convincing to the man of a trained analytical mind, but cannot be comprehended by the average layman. The one universal standard which he and all mankind, can fully understand and comprehend, is the money value, the financial equivalent.

The health officer must recognize that he is a public commercial agent in the field of competition with commercial industry. His customers are stockholders of a firm with paid in capital of $250,000,000,000 (vital assets of the United States in human life, on basis of figures current for 1907), while an official estimate on the same basis places all other wealth of the United States at 107 billion dollars. He has something to sell to these stockholders which will make their shares pay dividends. In order to make sales, he must be able to show that a dollar invested in a sanitary privy will yield greater dividends than in any other investment of the same amount. For this purpose the health officer must have a supply of economic data, showing what dividends have accrued to other investors under similar conditions.

Unfortunately, in the past there have not been sufficient precedence of universal community installations of sanitary privies, from which reliable data can be secured. Figures, more or less reliable, have been obtained from four Southern towns ranging in population from ten to twenty thousand, in which complete sanitary privy systems have been installed.

Let us assume that X represents the financial equivalent of the sanitary privy, then X equals $(R - C) \div N$; R represents the economic value of the deaths and cases of sickness prevented. Since we know that a reduction in the prevalence of other fecal bourne diseases than typhoid as well as a general improvement of the health of the community is effected, by the installation of sanitary privies, we will balance these factors against the effect of vaccination and other measures, and assume that the privy is responsible for all typhoid fever reductions. C represents the cost of that part of the health department activities, necessary to bring about the installation of sanitary privies. N represents the number of open back surface privies replaced by either sanitary privies or sewer connections.

In order to obtain R we must know the value of the human life and the average cost per case of sickness. On the basis of values current in 1909 Fisher estimates the value of the average human life at $1,700. The value of the items of consideration have more than doubled since then, therefore a reasonable figure based on present values would make each death prevented, an economic saving in earning power of $3,000. On the same basis the average cost per case of sickness is $30, therefore we may conservatively estimate every case of sickness from typhoid fever prevented as an economic saving of $50. The value of R then becomes: Number of lives saved times $3,000, plus the number of cases of sickness prevented times $50. C and N are self-explanatory.

By means of the data in the following table values for R, C and N of our equation may be obtained. When these values are substituted for the symbols, the equation may be solved for X.

*Read before the North Carolina State Health Officers' Association, Charlotte, N. C., April, 1920.

(1) Greenville, S. C.; (2) Anniston, Ala.; (3) Salisbury, N. C.; (4) Rocky Mount, N. C. The case and death rates for Anniston and Rocky Mount for the period prior to sanitary privy installation appear to be abnormally high, but balanced against Greenville and Salisbury a reasonable average is obtained.

Reduction (Typhoid)			R-C	C		N	X
	Cases	Deaths	Saving in Human Life Value	Health Dept. Cost	Unit Cost	Number Open Surface Privies Replaced by San. Privies or Sewer	Net Saving Per Privy
1	44[4]	3[2]	$ 9,850	$1,350	$0.85	1,600	$ 6.15
2	102[1]	8[1]	27,100	2,000	0.96	2,098	12.90
3	42	3	9,100	2,000	1.06	1,891	4.80
4	113	7[5]	24,600	2,000	1.14	1,750[5]	14.10
	75	5.25	17,765	1,837	1.00	1,835	9.48

1. 127 cases and 9 deaths reported November 1 to December 31, 1917; 43 cases and 1 death reported 1918; 6 cases and no deaths 1919. Average for 1918 and 1919, 25 cases and 1 death. 1,698 privies and 400 sewer connections.

2. Estimated.

3. Pro rata figure.

4. Average several years prior. Deaths estimated. Since 1915 no cases of local origin.

5. 120 cases in 1916. 8 deaths estimated. Past three years average 7 cases and 1 death. 1,500 privies, 250 sewer connections.

Striking an average therefore for the data at hand, we find that X equals $9.00, the financial equivalent of the sanitary privy.

The figures of the foregoing table apply to towns and cities. Statistics for North Carolina show that there occurs annually one case of typhoid fever per thousand population in rural districts, while there are five to six cases per thousand population in the unsewered towns, villages and suburbs. A further item of consideration is the fact that the privy in rural sections is in fly range usually of only one home, that for which the privy is provided, while in the towns and villages the privy is within fly range of from 15 to 20 homes. The foregoing figures would indicate that the risk in rural districts is only one-fifth as great as in urban districts, therefore the value of the privy would be one-fifth of the value arrived at for privies in towns and villages, or $1.80.

It has been demonstrated in many instances that sanitary privies are not a permanent protection against filthbourne disease unless they are properly maintained. Maintenance is just as essential as construction. The U. S. P. S. records cite three instances in which successful privy construction campaigns were conducted. All three communities rated high and in approximately the same figures at the close of the campaign. One community employed an inspector to enforce maintenance. The other two did not. After three years the three communities were rated again. The first community received a rating higher than the original. The privies in the other two communities had consistently reverted to E type. Therefore if by effective maintenance inspection, the Health Department holds this yearly typhoid fever rate down to, or below, the figures for the first year or two years after privy construction, as great an annual dividend accrues from maintenance as from construction.

THE IMPORTANCE OF HOSPITAL STANDARDIZATION.*

J. T. Burrus, M. D., High Point, N. C.

In the early days of our organization (the North Carolina Hospital Association), it is well that due consideration be given to every phase of service to be rendered and that we lay well and securely the foundation for this organization.

For a number of years, a few of the medical men of the North Carolina Medical Association frequently discussed the importance of this institution, and at more than one time laid plans for such organization. Four years ago, Dr. Chas. O'H. Laughinghouse, president of the North Carolina Medical Society, appointed, or rather, requested, the writer to visit as many of the North Carolina

*Read before the North Carolina Hospital Association, Charlotte, N. C., April 19, 1920.

hospitals as possible and present a paper at the coming meeting of the society upon this subject. This proved to be a greater task than at first was thought.

Every known hospital in the state was communicated with, and the larger number of the institutions were personally visited. The information obtained from the visits and the questionnaires were as follows:

The name of the institution; location; by whom and in what year organized; cost of institution; number of beds; number of surgical cases admitted in the preceding year; number of medical cases admitted in the preceding year, and the number of special cases admitted in the preceding year; whether the institution was open or closed; if records were kept of every patient entering the institution and the daily average of cases treated in said institution in the preceding year—this not to include patients who, through convenience, visited some special physician while at the hospital.

Very nearly every institution replied to the questionnaires and gave every effort of co-operation, delivering as nearly as possible a correct report.

Those of you who attended the North Carolina Medical Society meeting in Asheville in 1917 and saw the pictures as presented with this report were surprised beyond measure to know the amount of work that had been done in our state hospitals.

The president of the North Carolina Medical Society, Dr. Laughinghouse, realizing the importance of an organization of this character, appointed Dr. J. F. Highsmith of Fayetteville, Dr. H. F. Long of Statesville and the writer to organize the North Carolina Hospital Association.

One month following this meeting, the undersigned was calltd to his country's service. The former named gentlemen, together with a great many interested ones, met in Greensboro and organized the North Carolina Hospital Association, whose first meeting was held at Pinehurst the same date of our state meeting with Dr. J. F. Highsmith as its first president. It was apparent to every one present that an important phase of the medical service had been taken up, a service for humanity that was very necessary. I hope that a larger service will crown our efforts here and that we may lay well the foundation for a great institution.

In this state we have a very few hospitals that have a capacity of 100 beds. All of these institutions are open to any physician who desires to treat a patient in said institution, and have no organized or regular staff. About ten hospitals in the state have a 75 bed capacity. A large number of institutions have from 50 to 25 bed capacity.

The general character of our institutions are:

First—The church or municipal hospitals. These institutions have no appointed staff or any fixed organization. Any resident physicians in the town or county are invited to bring their patients for any kind or character of treatment that they desire to administer.

Second—The privately owned institutions, and there are a goodly number that belong to this class, whose staff is composed of physicians owning the institution. So far as I a mable to learn, stitution. So far as I am able to learn, staff, the work being divided according to the liking, pleasure and qualification of the men interested in said institution. Usually, one takes surgical, another medical, another laboratory and X-ray work, and ofttimes someone some other specialty.

The time has come when we must standardize our hospitals. The larger institutions in this state should, in many instances, have as much overhauling as the smaller ones. A few of the larger institutions have no basis upon which to work.

There are many things that should be required if we would serve humanity in the larger way. It is not all the patients who are sick that require hospital service. The day will never come when there will not be calls and demands for doctors to go into the home and administer to the sick.

There are three phases for hospital service:

First—The patient.

Second—The physician.

Third—The nurse.

Each one of these will necessarily require many changes and reorganization before the ideal is obtained, if ever.

The future nurse will reflect the training given. This being true, it is well that the institutions representing

themselves to give adequate training to nurses be required to meet a standard as much so as medical colleges giving medical degrees to men are required to meet a standard.

The well trained, conscientious nurse is one of the doctor's greatest assets and the patient's greatest glory, for by her we obtain the truth as it is observed while the physician is not by the patient's side. It is, therefore, necessary that every institution should be required to give an adequate, competent course of training over the three years' period, or affiliate with some institution that is prepared to give the last year. This will allow as thorough training as is possible. A great many of our better nurses are taking post-graduate work and proving themselves to be very dependable and indispensable.

I believe the members of the North Carolina Nurses' Association are interested in this and that they will make every effort to guard well the door to their profession so that those who enter will reflect honor on their noble profession and credit to their association.

It is very hard to have or make a fixed rule that will govern every phase of hospital work. These are so variable—necessarily so—that they must be made flexible.

The institution that will do the greatest good is that institution that has a competent, willing staff of doctors and nurses and that will make their hospital fit the case rather than the patient fit the institution. The strength of any institution is not in its walls; brick and motar do not make a hospital, but a conscientious staff of well trained doctors and nurses who are sincere, painstaking and thorough, will make an institution.

The nurses responsible for the training of the student nurse occupy a very important position. Without competent supervision, women willing to look to the personal training of each pupil nurse, dark and dreary would be our road. The nurse usually reflects the wisdom and thoroughness of her superintendent. A careful, thorough, patient, cautious and ever-watchful superintendent will see her work reflected and her usefulness extended to humanity through the larger majority of the nurses she graduates, each of whom will call her blessed. A careless, erratic, high-tempered, unwise, selfish, wilful, unforgiving, arrogant and ignorant superintendent will, in the main, send into the profession women who will, in some way, reflect some or all of her traits.

In 1885, there was enacted in North Carolina a law requiring every person who desired to practice the healing art to secure a permit from a board of examiners. Each year, the board has required just a little more. Soon it will be that if a man will acquire any specialty, he must appear before another board and have their approval stamped upon his credentials before he can hold himself up to the public as a specialist. When this day comes, we will have made a long step forward, and humanity will be benefited. God hasten the day!

In our state, we haven't sufficient laws, or the proper kind—one of the two—to protect the nurses' profession and the people from unskilled and under-trained nurses.

I can see the dawning of a new morning for doctor, nurse and people, and in advance we must thank the North Carolina Nurses' Association. Let's cooperate with them fully, hoping that the North Carolina Examining Board for Nurses will set the mark and require each nurse who is admitted for examination to present credentials from an institution that meets the requirement in every respect.

We all make mistakes, and will continue to make errors. This is deplorable and ofttimes very embarrassing, but he who profits or learns from his mistake is hopeful; the one who does not profit by mistakes and who will not make an effort to correct former mistakes is pitiable. This is true of institutions. The lay mind, or many of them, think that all hospitals are the same, and ofttimes enter an institution and undergo a serious operation or some very undetermined treatment by one who has never done a similar case or even assisted in a similar case and occasionally has had no operative training whatsoever. The case dies. The hospital is censured and surgery receives a shadow which does not always pass away in a day.

There is no town in North Carolina large enough for a hospital that gives a graduation to nurses that has not in that town a man who is trained in the specialty he would undertake, who has previously devoted special time and study to his subject and who is willing

to continue to devote special time and study to his subject. If this community has not a man of this caliber and this interested inclination, I question seriously whether any community is benefited by having a few hospital beds set up in some residence and calling that an institution for taking care of the sick, a placard from its door, "HOSPITAL."

The professional side of a hospital is, perhaps, the most important. Each institution, whether it be large or small, should have a staff, each department having at the head of the department a man competent to conduct said department, men who have served their apprenticeship, who have had their training and are willing and anxious to continue faithfully the study of medicine, and especially their specialty, availing themselves of every opportunity to visit clinics and gather any new idea for treatment of their patients, a student zealous and untiring in his effort, who dedicates his life to the quest of knowledge, a man true to himself, his patient and the profession, and who is willing to co-operate with another man that a greater good may be delivered to the patient.

A hospital should have a well-equipped laboratory and X-ray laboratory. These departments should be conducted by one competent and willing to give special time to the work, and few are the cases that will be admitted to any hospital that it will not be necessary to resort to both chemical and X-ray laboratories.

Records of cases should be made, the daily progress noted, a complete report of complications, if any arise, noting any unusual symptoms. If the case is a surgical one, the operative sheet should show fully every step in the operation and the microscopic pathology revealed, noting any or all things that are unusual.

When the patient is discharged from the institution, a true and correct report of the condition of this patient when dismissed should be noted, and in cases of death as many autopsies should be done as possible.

Pardon me just here for digressing, but if we would devote a little time with the family and show them the importance to the profession of having autopsies, not for the good of the one who is gone, but that perhaps someone living might be benefited, permission to do autopsies would be far more frequently obtained.

A report from our patients six or twelve months after treatment would be of inestimable value (nowadays it is the end-results both doctor and patient hope for), and how important it is that we should know whether a certain operation or some special treatment has been helpful or hurtful to a patient. If hurtful to many patients, then that it might be abstained from; if helpful, that others might be benefited by the same treatment.

Institutions permitted to train young women who are to go out as nurses should meet at least a larger part of these qualifications:

1. Let every patient have a complete record, with physical examination and all other data pertaining to the case.
2. An average of twenty (20) patients per day.
3. Laboratory facilities, chemical, pathological and X-ray.
4. Daily lecture course for nurses, daily personal instruction in practical nursing by a graduate nurse.
5. A home for nurses, separate from the hospital and that is adequate and comfortable.
6. A uniform price per month for nurses in training, the minimum of which should be $10.00 per month.
7. A regular staff of doctors for each hospital.
8. A follow-up system of all cases when possible.
9. If a nurse removes herself from one hospital, before she can be admitted, the former institution must concur in her admission.
10. The division of fees prohibited by this association.

CONCERNING CANCER OF THE BREAST.

By Junius F. Lynch, M. D., Norfolk, Va., Ex-President and Honorary Member Seaboard Medical Association of Virginia and North Carolina. Former Surgeon General of Virginia. Late Lieutenant Colonel, Medical Corps, U. S. A.

I am prompted to write on this subject because of several women who have come to me recently with "lumps" in their breasts, and who, in spite of my advice, cling to the idea that it is either a trivial matter or that, if malignant,

it is incurable, and nothing remains for them to do except to accept the inevitable as stoically as possible.

For many years we waged a campaign of education before the public could be persuaded to belive that tuberculosis, if taken in time, could be cured. This is true also of appendicitis; and it is not at all unusual to have patients come to us with a diagnosis already made, for the average individual knows what localized pain and tenderness in the right inguinal region means. We should begin another campaign now and teach the public that cancer, too, is curable if taken early, and that every mamary tumor is a possible and potential carcinoma.

Women are, unfortunately, sensitive about such matters, and this trait makes many of them conceal the existence of lesions of this character until the lymphatic glands become involved and other symptoms develop which compel them to seek relief. In the minds of most of them there is a stigma attached to this disease which applies to no other; this, too, prevents them from asking timely advice. The dread of operation deters many; and yet one would think that their devotion to their families and their homes would make them willingly take advantage of the only hope which is offered to prolong a useful life and to prevent a death as certain and sure as it is loathsome.

The idea that cancer, once diagnosed as such, is incurable is deep-rooted, consequently many seek in their desperation the aid of quacks and so-called cancer specialists, who temporize with various pastes and other means, until the patient's money is gone and she returns to her home to die, because it is too late for surgery to be of benefit.

Many general practitioners do their patients a grave injustice by advising them to await the development of symptoms which will make the diagnosis positive, and in not explaining the danger of delay. Time is a factor in breast tumors ,and a very important factor, and the practitioner of medicine who thus procrastinates with such a lesion is losing time which may cause his patient a vast amount of unnecessary suffering and, in the end, the loss of her life.

In the beginning cancer is local, this has been proven beyond the peradventure of a doubt, and one cannot read the complete and convincing articles and statistics of Halstead, Deaver, Blood good and Rodman without having this conviction confirmed. It is just as local as an acute appendicitis ,and operation should give the same results with a mortality rate as low as that following a simple appendectomy. When neglected the mortality is one hundred per cent. A frightful mortality to contemplate! It is greater than that of any other disease with which we are familiar, and yet the operation mortality will average one per cent; in the service of many operators it is even lower than this. These facts should be impressed upon our patients; they should be quoted and re-quoted until it is thoroughly understood that without early operation cancer of the breast means death, and death, usually, within three years.

Early diagnosis and early and radical surgery represent the most certain and effective treatment of mammary cancer at the present time; but it is exceedingly difficult to convince a woman with a painless "lump" in her breast that the chances are she is harboring a lesion so malignant that it will demand her life unless it is thoroughly eradicated. Regardless of how symptomless the "lump" is, the mischief may be, and probably is, being done. We know that the time in which metastasis occurs is very variable; we also know that the cells may be carried along the lymph channels so insidiously that wide-spread dissemination may occur before we realize that we have something very serious to deal with. In an apparently innocent tumor this metastatic process may be going on quite actively, so it is well to consider every breast tumor malignant until it is proven innocent by operation and microscopic examination.

One out of every three women at forty with mammery tumor, however insignificant and symptomless it may appear to be, is suffering with cancer; between forty and fifty there is a slight increase in the rate; before twenty and after eighty it is rare, but the younger the patient the shorter and more virulent the disease becomes. The favored time for its development is within a year or two after the beginning of the menopause, and if a woman comes to us at this period of life with a mammary tumor which gives a history of growth, however slight or slow it may

be, we are not doing our duty if we do not tell her the truth and explain to her fully the danger which lies in neglect.

That cancer is on the increase is a fact which cannot be evaded; we do not know why this should be, and nothing I have head on the subject gives a satisfactory explanation, but that it is true must be conceded ,and it is a problem for the medical profession to solve. The United States census for 1890 records 18,500 deaths from cancer; in 1900, ten years later, the deaths totaled 29,500. During 1913 there were 70,990 deaths an increase of nearly thirty per cent. from cancer in this country, and ten per cent of these were due to primary disease of the breast. There were 1,150 deaths from cancer in Virginia in 1918. Dr. W. J. Mayo, in an address recently delivered in New York, stated that one out of every eleven women who die, die of this disease. These figures are truly appalling, and they force upon us the realization that something must be done to stay the constant onward march of this particular enemy of womankind.

In all the great medical centers earnest workers are plodding assiduously, and I feel safe in predicting that the time will come when cancer will be as rare as yellow fever is today. In the meantime we must educate the public; we must force the women to realize the danger of neglecting the "lump;" we must advise early and radical operation and must not dally with palliative measures; otherwise our experience will be that of Deaver, who states that twenty-five per cent of the cases referred to him were inoperable because they were too far advanced.

Let me entreat you, therefore, not to lose sight of the fact that the little innocent appearing "lump" is a danger signal, and probably is a focus for the elaboration and distribution of a poison so insiduous, so sure and so merciless that hope must be abandoned if it is not taken seriously and handled promptly and fearlessly.

ROENTGEN THERAPY.*

Hunter B. Spencer, M. D., Lynchburg, Va.

Everyone now is familiar with the fact that the Roentgen or X-ray is one of the greatest aids in the field of diagnosis, but there are many who have not yet begun to appreciate its full value as a therapeutic agent.

Since its first discovery or introduction into the field of medicine it has been associated, or thought of in connection, with the treatment of epithelioma, carcinoma and other malignant conditions. However, I want more particularly to call your attention at this time to the splendid results obtained by its use in several other conditions.

The results to be obtained in Roentgen Therapy are in a large measure dependent upon a careful application of the following principles:

(1) A correct diagnosis and a knowledge of the existing pathologic process.

(2) The proper selection of cases and the recognition by the roentgenologist of the scope and limitations of this valuable agent.

(3) The knowledge and experience necessary for the proper administration of this therapeutic agent.

(4) The co-operation of the patient and the family physician or surgeon referring the case.

I shall try to limit my remarks to results which have been obtained and can be duplicated under the above mentioned conditions.

Thanks to the roentgenologists and manufacturers of X-ray equipment, who have spent much time and money in careful work and experimentation, we are today able to measure quite accurately the dosage according to the results desired.

The effect of the roentgen ray varies with the type of tissue, epithelial cells being more readily affected than those of connective or muscular tissues. Glandular tissue is especially susceptible to its action (ovaries, testicles, thymus, thyroid and lymphatic glands, spleen, liver, etc.). Certain pathologic cells are seen to disappear very rapidly when the same dose applied to healthy

*Read before the Tri-State Medical Society at Charlotte, N. C., Feb. 19, 1920.

tissues merely causes a slight redness. The more nearly cells approach the embryonal type the more sensitive they are to the action of this ray. Next in order to the glandular epithelial tissue would come the skin, mucous membrane and intima of blood vessels.

Tubercular Adenitis.—One author[6] claims that three per cent of the worlds' entire population show visible tubercular glands under careful and thorough examination. Fishberg in his book on Pulmonary Tuberculosis says that from 50% to 75% of the children examined at the dispensaries show enlarged cervical glands. Admitting that the larger proportion of these were due to other causes, e. g. tonsils, teeth, etc., there must have been a goodly number due to tuberculosis. We all know it to be of frequent occurrence and that the results are unsatisfactory in many cases because of recurrences, chest involvement (some men[1] claiming 20% to 25% of cases treated medically develop tuberculosis of the lungs later; personally I suspect a few of these had the lung condition at the same time), and not to be ignored are the ugly cosmetic results frequently seen following drainage and dissection.

Each method of treatment as used at present (hygienic, vaccine, surgical, laryngological, medical, etc.) has its advocates and good points as well as disadvantages. It would be foolish to claim to cure all cases by the use of the roentgen ray alone, but some men[1] report as high as 90% of cures. Under this method of treatment certain peculiar changes take place in the glandular tissues and it has been suggested that it not only destroys the tissue of low resistance but that coincident with this destruction autogenous vaccines or antibodies are set free which are far superior to the prepared "tuberculin." This position is maintained by a number of men, among whom are Gray of Richmond, Boggs of Pittsburg and Crane of Kalamazoo, and attention has been called to the rapid general improvement while under this treatment. Holding[5] states that the ultimate effect is to replace the lymphatic structures with fibrous tissue.

It is most important when these cases are seen to search carefully for any possible focus or starting point of infection, e. g. tonsils, teeth, etc. If one or more of the glands are soft and fluctuating they should be drained promptly. Some prefer an open incision for this, but Pfender[6] prefers to use a suitable aspirating needle to remove the fluid and then injects creosoted iodoformic oil, the result being practically no marring of the skin. The roentgen treatment is then given and in a month or two the suppfrating gland has been entirely absorbed and the neighboring inflamed glands have disappeared, leaving only small fibrous nodules. The non-suppurating glands practically always disappear under Roentgen treatment alone.

Several prominent surgeons have suggested that the cause of recurrences following operation was probably due to improper technique and a failure to remove all diseased glands. This would seem a practical impossibility, when we recall that there are something like three hundred glands in the cervical region and to distinguish a slightly diseased gland will often require a microscope. In properly seelcted cases it is advisable to combine both surgery and roentgen treatment, but in a large majority of cases it is unnecessary to use surgery. It is well and advisable always to combine the usual hygienic measures with this method. The advantages of this method are—it is perfectly safe, no danger, painless, no loss of time at hospital, no shock, no hemorrhage, no unsightly scars or resulting paralysis, no anesthetic and does not interfere with carrying out proper hygienic treatment, and usually there are no recurrences if properly radiated. Radiation should not be continued indefinitely as telangiectasis may result.

In goiter of the exophthalmia type, or hyperthyroidism, I believe the results are so encouraging under this method of treatment that it is only fair to the patient to use the X-ray before considering operative procedures and particularly so since so many of these cases are very poor surgical risks. Stuart McGuire[2] says, "Operations for exophthalmic goitre are always attended by some risks, and occasionally the hazard is so great that, in the opinion of some surgeons, the work should not be attempted." Again in the same paper he states that "for the future, in the treatment of these patients, I will rely more on the effect of the X-ray than on any other one factor, save REST." Another surgeon has expressed the opinion to me that it did not seem rational treatment

to remove a gland because of hypersecretion, particularly, if there is an agent which will lessen or stop this over secretion.

G. W. Grier[7] reports cures in the cases treated of approximately 90% and recommends classification for treatment as follows: **Mild or simple hyperthyroidism** may be treated medically or by roentgen ray—these cases usually occurring at or near adolescence. In **acute exophthalmic** goiter roentgen treatment is the most satisfactory. Medical treatment is inadequate and surgery unnecessary, and sometimes dangerous. In the **chronic type** the choice lies equally between roentgenization and operation. When **hyperthyroidism develops on an old goitre** surgery is the proper treatment.

Because of their intimate relationship and the fact that better results have been obtained by so doing it is customary to direct the rays over the thymus as well as through the thyroid. Many writers even claim that some of these cases are caused by a hypertrophic and hypersecreting thymus. By the roentgen treatment of these cases it is believed that a sclerosis is produced with a lessening of the glandular activity and as the hypersecretion lessens we begin to see improvement in the nervous symptoms and the general health of the patient, then a gradual reduction in the pulse rate. I have seen the pulse rate drop from 140 to 90 after a few treatments and later come down to approximately normal. Reduction in the size of the thyroid gland and the amount of the exophthalmus comes slowly, but, if of recent development, may be expected.

The results to be obtained in the careful treatment of these cases will compare favorably with those of any other treatment as yet devised and include a lessened production of the toxic secretion of these glands and thereby improvement in the general health of the patient, relief from nervousness and lowering of the pulse rate. I believe that it is essential to combine with this method REST and proper diet, if we expect to obtain the best results in the largest number of cases. Badly infected teeth or tonsils or other foci of infection may be present and should receive proper care as a more rapid improvement is usually noted after such attention.

Uterine fibromata—idiopathic uterine hemorrhages, etc. The roentgen rays were first used in the treatment of these conditions in Munich in 1904 by Deutsch and in this country by Pfahler of Philadelphia in 1906, since which time numerous roentgenologists have used this method with marked success. In the treatment of uncomplicated uterine myomata it is believed that we can obtain between 90% and 100% cures by this method.

Grier[8] states that the circulation of the uterus being influenced by the activity of the ovaries, the depressant action of the rays upon those organs is probably largely, if not altogether, responsible for the good results obtained. Albers-Schoenberg believes the tumor itself is affected, the embryonal cells being destroyed and an endarteritis in the numerous blood vessels of the tumor mass being brought about. There seems to be little question that both are affected and have bearing on the results, since Pfahler of Philadelphia, Stern of New York, and one or two others, have treated cases with satisfactory results in which pregnancy later occurred with births of normal children. Pfahler's case was treated by protecting the ovaries while treatment was directed toward the growth demonstrating that there is definite action on the tumor itself.

Indications for treatment by the roentgen ray are—well advanced anemia, organic heart disease, diabetes mellitus, chronic nephritis, lung disease and goitre with heart symptoms, all patients beyond forty in whom there is no contra-indication. Young women in whom it would be neecssary to do a hysterectomy in order to remove the growth.

Contra-Indications.—Where there are small pedunculated tumors, in young women healthy otherwise, which can be excised without destroying the reproductive powers of the patient. When tumors are complicated by malignant degeneration or that are beginning to become necrotic. When associated with disease of the adnexa, or when the patient's condition is such that the danger of an operation is less than that of a delay of six or eight weeks which would be necessary to obtain results.

The experience of the writer and that of a number of other roentgenologists

would suggest the following conclusions:

Deep roentgen therapy stops the hemorrhage caused by uterine fibroids which is followed by a gradual disappearance of the tumor.

The treatment of metropathic hemorrhage is practically always successful.

Uterine hemorrhage occurring at or near menopause, when not due to malignancy, will usually disappear quickly.

Roentgen therapy is unquestionably a most valuable aid to the gynecologist but **should be administered by the roentgenologist**—the two working in co-operation.

Time will not permit me to go into a detailed discussion of these conditions, report of cases personally treated, the technique, etc., however, in closing I would add that it is not my intention to recommend this method to supplant all others, or at all, except, after proper study and selection of cases, but I would urge you not to overlook this valuable therapeutic agent when trying to select the method best suited to the individual case.

818 Church St., Lynchburg, Va.

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[7] Grier—Am. Jour. Roent., March 15, 1917.
[8] Grier—Interstate Med. Jour. No. 5, 1916.

THE MEANING OF ELECTRIC AND MAGNETIC FOODS.

(By Dr. Axel Emil Gibson, Los Angeles, Calif.)

Life is a cruise on the high seas of evolution, and every turn in its sweep means a shifting of its polarities—the interplay of chemical or vital affinities between the individual and his environments. Step by step, slowly but resistlessly, evolution advances, pushing abreast the entire range of its interlinked, interdependent forms, starting at the very gateway of life (indifferentiated protoplasm) gradually to reach the biologic eminence of the complex human organism.

The essential fact in evolution, however, and on which its entire moral value has its basis, is the fact of its unity, while it is the sundering of the latter into expressions of variety that marks the beginning of tangible and definite evolutionary life. And, furthermore, it is in these life processes of unity separating into diversity, and diversity again returning into unity, that we find the playground for the actions and reactions of magnetic and electric polarizations.

An organism is an electric coil made up by millions of cellular batteries—the body cells—which one in itself constitutes a distinct center of magnetic electric exchanges, and to which the phenomenon of vitality holds the same position as the force of adhesion holds to gravity. Philosophically considered, the affinities of the nutritional cells which in their sum total constitute the hunger of the body, represent a desire force, prompting every unit of consciousness to enlarge its individual sphere of power and experience. Hence growth is the expression of a desire to know and to experience, felt in every atom, cell or center of conscious existence.

From this point of view, hunger and thirst become electric phenomena, and the entire process of nutrition an exchange of ionic-electric charges, depending for its success on the adequacy of the cells to respond to favorable affinities, in terms of physiological tone and a normal relation to the organism. The choice of food is thus an experience of normal cellular needs, as expressed in hunger, digestion and assimilation.

Magnetism is the passive substratum of a potent world power acting as a nucleus of matrix for electric manifestations. We may call electricity the active principle in magnetism—the latent forces of the latter expressed in the phenomena of making and breaking affinities; in the explosions of thunderstorms, precipitation of rains, making of tornadoes, gratification of hunger, assimilation of nourishment, etc., according to the different planes and character of manifestation.

Now as evolution stands for the advance in power and refinement of the forms and forces of nature, it follows that the scope of the electric exchanges is exhilarated in proportion to the refinement of the structure on which it

acts—or vice versa. The more refined the texture of substance of a certain element, the higher degree of vitality expressed through it.

Hence in the fruit we undoubtedly possess the highest type of food as yet evolved in the vegetable kingdom. Consequently it is in fruit that we find the strongest manifestation of electro-vital energy—a fact which may explain its sometimes unique and unexpected action on the human system.

For electricity, per se, by its very nature stands for the principle of action. Its purpose is at once a breaking and making of equilibrium—a destroyer and creator of harmony. By the affinity for its opposites, the electric energy breaks up heterogeneous and unstable compounds, which may be normal and harmonious as isolated processes, but become alien and destructive as soon as they form a hindrance to the movements of the larger life.

In the individual organism the action of any independent, separate function becomes a source of positive poisons, inimical to the health and life of every other function of the system. Hence, it follows that the presence of fruit in a poison-charged system, by starting a fresh series of physiological polarizations, may result in the violent breaking up of chemical affinities, and through the process of attraction, extraction, and destruction, succeed in effecting an isolation and elimination of systemic poisons, which, according to the pathological severity of the latter, may range from a mild purgation or summer complaint to a threatening typhus, with gastro-intestinal convulsions. The action stands for an attack of the fruit acids on the bacterial acids, the consuming fire of the electric energy in extracting and destroying the mass of vital poisons held suspended in the cells of the system, and brought in active, nerve-shocking engagement by the ferociously charging electrons contained in the acids of the fruit. For if the system should not possess the physiological poise and vital resistance to meet the shock, the result may be serious and even fatal. The many so-called ptomain poisonings and idosyncracies arising from indulgences in fruit have their true explanation in the electric action which, like a physiological thunderstorm, strikes its bolts into the poison nests of the organism.

It is this ever present tendency of nature to establish harmony through a restoration, redemption, perfection and final unity of existence, which we find manifested in the essence and virtue of every plant, flower or fruit having power to cleanse and purge the system from its poisons. But it devolves on our personal attitude, on our moral motive and self-control as to what success we may experience in this grand work of physiological redemption. For while the action of nature upon the individual is the primary impulse in evolution, the response to this impulse in terms of individual reaction upon nature—though secondary in order—is primary in importance. And it is in the sustained adjustment of this balance between action and reaction, between the environmental impulse and the individual response, between the sensuous appeal and the moral application, that the meaning and purpose of evolution become at all intelligible.

In the fruit—this fairy woof of oxygen, sunshine and electricity—we find an acid, which, like the Trimurti in the Hindu mythology, is at once destructive, instructive and constructive; or in its metaphysical terminology, a destroyer, redeemer, and creator. We often make the mistake in our appreciation of physiological disorders in relation to fruit acids, to identify the latter with the basterial acids arising frof systematic fermentation. Hence, while rheumatism and neuralgia undoubtedly have their origin in acids, it is a mistake to identify these acids with fruit. The mistake, however, is based upon the fact already referred to, that the presence of fruit acids in a system reeking with fermentation will stir up the bacterial breeding nests to the same effect as a gust of wind in striking a heap of dust. The dust has not increased, but its presence has been brought into painful evidence. So far from being a fair argument against fruit as a remedy against rheumatism, the condition should serve as a caution and discretion in our usage of fruit. For a remedy, if taken in moderation and under guidance of positive knowledge, may eliminate the very disorder which a careless, thoughtless, blundering indulgence of the same remedy will give rise to.

"Natura non salte"—nature performs no sudden leaps or bounds in her labors, and her services must, therefore, be elicited in gentleness, patience and moderation.

As the electric energy in nature depends for its presence and expression on the substance used as its vehicle, so in the order of its biological or physiological associations, its power ascends with the subtleness and refinement of the organized substances. This gives to the fruit its pre-eminence of electric energy, while the vegetables by their coarseness of fibre and lack of textural penetrativeness are magnetic, and thus hold the biologic balance of power. The difference between the action of the vegetable and the fruit may be expressed in the differences between the force of defense and the force of aggression; between the principle of conservation of life and the principle of advance in life! Practically applied, this interrelation between the fruit and the vegetable has the greatest bearing upon our physical existence. To its very nature receptive, the magnetic foods—the vegetable—build up by afinity and absorption, while the fruit by its elecerical qualities, its aggressiveness and tendency to attack, eliminates by destruction. Thus, a baked potato or onion introduced into a poisoned system, by virtue of their magnetic properties, will attract the poisons, and by an absorption of the latter into their matrix remove them from the organism, while a dish of strawberries or peaches will pursue the alien elements—not to absorb them, but to destroy them—leaving the elimination of the pathological wrecks to the magnetic carriers—the alkalies in the fods and circulating fluids. Hence, to the systematically nervous, i. e., to systems replete with organized poisons, the vegetables—raw or cooked, as foods or decoctions—are safer eliminators than fruits; while to the sluggish and over-nourished the restoration and maintenance of their equilibrium require all the fresh fruit the seasons offer.

As a turning point or physiological shock absorber between the electric and the magnetic foods, between the acids and the starches, between the fruits and the vegetables, we find the nut, the grain and the egg—the representatives of the nitrogenous elements of nature. These foods form the field of exchange—the neutralizing center for the interchanging polarities of the alkaline and acidic force currents. Hence, a diet, to be full and complete, must consider the judicious blending of all these foods—though any abnormal condition of the system, due to excess may demand the removal from the bill of fare, for a longer or shorter period, of the one or the other of these representative groups of food. And while the nutritional balance and the physiological harmony are the ideals of physical existence, always to be aimed at, the ever-important point is to find the true method of elimination or adjustment by which such a balance can be safely reached and maintained. To the wise, the pure and the salf- controlled, all natural foods are pure, good and effective; while to the self-indulgent, lustful and intemperate individual every food, no matter its intrinsic value to life, can be turned into positive agents of destruction. The sole guaranties for a continued ascent of life lie in the consciousness of its possession, not for its own individual enjoyment, however, but for the good its worthy use can render the world.

Tuberculosis.

In an investigation which covered 1,000 successive dispensary cases, Arnold Minnig, Denver (Journal A. M. A., May 22, 1920), found that 502 of the patients were married and 498 were single. Among these 502, there was active tuberculosis in husband and wife in forty-four cases, or 8.7 per cent. Of the forty-four cases, twenty-two of the consorts had died of tuberculosis, or 50 per cent. Of the twenty-two surviving consorts, seventeen were men and five were women. In these twenty-two, tubercle bacilli were present in twelve of the widows or widowers. The period of illness extended from four months to twenty years. Minnig did not include in the forty-four any cases in which, for instance, there was dulness with suppressed breath sounds or even bronchovesicular breathing at one or both apexes and a vague history of pleurisy or other mild symptoms, but no moisture. No doubt many of these were tuberculous carriers, yet not clinically open cases of tuberculosis; but they were open cases part of the time.

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CHARLOTTE, N. C.

"STOP, LOOK AND LISTEN" "SOUND YOUR KLAXON."

There's a Fly on the Bread.

Doctor were you ever "called in" to clean the maggots out of the baby's nose? I have been, both in the shack down the alley and the cabin behind the hill. It's a nice job isn't it? Just common every day house fly maggots and the baby's nose full of 'em.

When Eve's first baby came the flies were "hovering" near and today they do the same. In all corners of the earth and at all times in history the fly has been man's constant companion—and pest. "We never miss the joys we know not of" just so, man could never realize what life might be without the fly.

No achievement of medical science in these marvelous recent years, can compare or at least transcend the clear understanding of the transmission of deadly diseases by insects. In India alone malaria imposes a yearly tax of over a million human lives. The flea carrying the plague has throughout the ages created terrific devastation, sweeping away lives by the millions and transforming populous cities into deserted wildernesses. Lice carry the organism causing typhus, which by the way is spreading today throughout the world at an alarming rate. The bed bug has carried "black sickness", the tse-tse fly "sleeping sickness" and the common stable fly as has been shown is a possible disseminator of infantile paralysis or poliomyelitis.

One by one man's parasitic attendants and blood sucking visitors have been shown to be potent vehicles of death. Of all revelations perhaps none effects so great a number of individuals in all countries, both by its significance and effects, as the demonstration of the disease-carrying power of the common house fly. So obsessed have the people's minds been with the idea that the house-fly was of no significance in relation to man's wellfare that it has hardly been deemed a subject worthy of serious study.

Now let us get it clearly in mind that the doctor is a sort of "public utility" concern in his community. Whether he wills it or not and whether he be surgeon, medical man or what-not, he is absolutely responsible for the mental attitude his clients take in regard to disease and health.

No matter what his specialty may be if he is given a license by the state to practise medicine he should by all moral rights be held responsible for criminal malpractice if he fails to do his part toward informing the people of the dangers that are about them.

Fly borne diseases are "preventable." Fly borne diseases have killed more babies and grown ups than all the wars, earthquakes or "ripe olives" in the world's history.

Sticky fly paper, traps and swatters are useful but honestly now wouldn't it sound foolish to turn on the water in your bath tub and send to the store to buy teaspoons to dip it out at the window to keep the floor from getting wet? You are getting disgusted and say I am talking foolish baby talk—and I know it—but some one is buying fly paper and poison and swatters when at the back door or down at the stable is a seething mass of maggots hatching out more flies in a few minutes than could be caught or swatted all summer.

The fly is rather particular where she lays her eggs and the average number she deposits is 120. These hatch out in a few hours (6-24) and the larvae require heat, moisture and relative darkness in decaying animal or vegetable matter to live their 10 day life before reaching the stage of mature house flies. It's common sense to shut off the water to keep your bath tub from overflowing but it should be "criminal malpractice" to allow privy, cow stable and hog pen to continue maturing their millions of flies.

N. O. MEETING OF A. M. A.

Prior to the New Orleans session of the American Medical Association, there was considerable anxiety on the part of many concerning the success of the meeting, the anxiety being due to the supposition that there was not sufficient number of hotels to accommodate the expected attendance. From various quarters came reports that men were not planning to attend because of this lack of hotel accommodations, and, naturally, those pessimistically inclined looked for a moderately small registration. As a matter of fact, the attendance at New Orleans exceeded the expectations of the most optimistic; the registration reached 3,681. Hence, so far as number is concerned, the session was an immense success. But it was successful from every point of view—in the unusual social features provided by the hospitable physicians and citizens of the convention city; in the attention given to the exhibits, and in the scientific character of the work of the sections. The social features were typical of the city. The largest available hall was taxed to such an extent by the Carnival Ball, which took the place of the usual President's Reception and Ball, that many of those attending the session were unable to gain admission. The grand Fete Champetre and Pageant at the City Park was a beautiful spectacle—it was such as could be presented in but few other cities. The House of Delegates, in an unusually important session, took timely action on questions of great interest to both the medical profession and the public, the details of which will be found in the published minutes. Among other things, an exhaustive report on the use and abuse of narcotic drugs was submitted; action was taken urging Congress to make necessary appropriations for the publication of the Medical History of the World War; and resolutions were adopted declaring opposition to the institution of any plan embodying the system of compulsory health insurance. The Local Committee on Arrangements and the medical profession of New Orleans and Louisiana well deserved the thanks conferred on them by the House of Delegates. Their untiring efforts made the New Orleans Session the success it was. In spite of the fact that the attendance was so large as to tax the hotel accommodations of the city to the limit, the Session will be remembered with pleasure by all who attended. The arranging for the annual session of the Association, including the provision of numerous meeting places, large exhibit space and lodgings for from four thousand to five thousand physicians and their guests, is no small task. The co-operation of the Local Committee on Arrangements is the determining factor in the success of the Session. The New Orleans Committee, which had unique and difficult problems to handle, did its work well.

AMERICAN ASSOCIATION OF ANAESTHETISTS.

The subjoined summary of the convention of the American Association of Anaesthetists is sent by the National Anaesthesia Research Society, to those who may have any interest in anaesthesia, in pursuit of its policy of disseminating information concerning anaesthesia and its practitioners. Abstracts of the papers will be published from time to time. This bulletin concerns only the activities of the convention as such. The National Anaesthesia Research Society does not necessarily endorse the sentiments or information which it passes to its members. It vouches only for the correctness of the statements sent out. T. T. F.

New orleans.—Statements made from the floor indicate that colleges are not turning out anaesthetists fast enough to meet the demand. Dr. Isabella C. Herb of Chicago urged that the services of an anaesthetist should be considered separate and apart from hospital charges, and that separate statements should be sent to the patient.

Dr. George W. Crile of Cleveland said, "I do not believe that any of us feels that the degree of M. D. confers a moral right to give an anaesthetic. The work needs long and special training. We will co-operate with you. Some people never can be anaesthetists. They must be peculiarly fitted by nature. Personality and training are important."

Dr. Lower of Cleveland said, "No surgeons use lay anaesthetists if there are well trained M. D.'s available. Are you going to supply the demand?"

On motion of Dr. George Pinnes of Los Angeles, seconded by Dr. B. I. McKesson of Toledo, the following resolutions were adopted:

Whereas, the American Association of Anaesthetists is committed to the advancement of the science and art of anaesthesia in all that relates to the welfare of humanity, through the medical and dental professions, and

Whereas the advances in medical science are making it increasingly clear that the administration of anaesthetics is a factor of practically equal importance with diagnosis, treatment, and operation, and

Whereas there is an increasing disposition on the part of a few surgeons and hospitals to commit the administration of anaesthetics to nurses, office assistants, and others without adequate qualifications, exploiting such services to their commercial advantage, according to testimony adduced before this Association, thus jeopardizing the health and welfare of patients, and increasing the death rate in operations, and

Whereas anaesthesia is in a state of evolution, and those who advocate lay anaesthesia would defeat any further progress in this branch of medicine,

Therefore, be it resolved, That the American Association of Anaesthetists places itself on record as unalterably opposed to the employment of lay anaesthetists, nurse anaesthetists, and all other types of anaesthetists who shall not have been graduated from recognized medical or dental colleges and have been licensed to practice medicine or dentistry.

Be it further resolved, That the American Association of Anaesthetists will inaugurate and prosecute legislation to protect the medical and dental professions and the public from such inadequately educated and trained anaesthetists whenever such action is necessary.

The Association also adopted resolutions pledging its co-operation to the government in securing specialists in the several branches of medicine in the departments of the surgeon general of the navy and surgeon general of the army.

The American Association of Anaesthetists elected the following officers:

President, Jos. E. Lumbard, M. D., New York City.

Vice-Presidents, F. L. Richardson, M. D., Boston Mass.; Eleanor Seymour, M. D., Los Angeles, Cal.

Secretary-Treasurer, F. H. McMechan, M. D., Avon Lake, O.

Executive Committee, John J. Buettner, M. D., Syracuse, N. Y., Paul Lux, M. D., Kansas City, Mo.

TAKE BACK YOUR CIGARETTES!

A citizen of the United States of America, enjoying the fruits of peace, has stated in print the regretful fact that the American Red Cross gave cigarettes to soldiers during the World War. Such an act he terms a mistake. We infer that the gentleman must have donated a large sum to the Red Cross, and is rightfully peeved because some of it was wrongfully used in bringing a little relaxation to some "buck" in khaki.

This gentleman should be given a refund. If he will stop the first ex-soldier he meets on the street, and will make known the desire, we are certain that the latter will gladly give him a sum equal to the value of the cigarettes which that particular man received from the Red Cross. Of course some money can never be returned, save by proxy. At Soissons, at Chateau-Thierry, in St. Mihiel, and in the American cemetery at Romagne, near the Argonne, are buried half a hundred thousand American soldiers who "went west" in the cause for which this country fought.

We knew many of these lads. Many of them were Nashville boys. Some were our "buddies." Some of them, sad to relate, smoked cigarettes. Possibly some of them, when drawing near to the Zone of the Advance, were presented with packages of cigarettes by a Red Cross worker who, God bless her soul! saw nothing wrong in it. Unfortunately, these lads now resting under the wooden cross where the red poppies grow, cannot make restitution to the above-mentioned gentleman and those of his tribe.

But those dead lads have friends, thank God! who will act for them. Any gentleman, desiring his money back for the cigarettes smoked by those boys, may call at the Tennessean office and he will be accommodated. No proof of the donation will be required. No quibbling at all. Simply step up and say: "I want back my money which was spent in giving cigarettes to those dead men who cannot pay themselves." We will "pay the freight". . . . Could anything be fairer?—Nashville Tennessean.

Urology

A. J. Crowell, M. D., Department Editor

Urinary Tract Purpura.

Stevens and Peters report a group of cases that presented as a distinguishing feature a purpuric condition confined, in at least the majority of cases, entirely to the urinary tract. This condition was marked by an acute onset, temperature of an irregular type, general febrile symptoms, frequency of urination, dysuria, gross hematuria, cylindruria and a reduction of the phenosulphonephthalein excretion. The disease, as far as it could be observed, tended to run a prolonged subacute or chronic course. Occasionally, acute relapses occurred. Pathologic examination of the lesions obtained from the bladder wall by means of a cystoscopic punch revealed submucous hemorrhages unaccompanied by any signs of inflammation. Suggestive vascular changes were observed in some specimens. Bacteriologic examination of blood and urine proved negative. Attempts to determine the etiology of this condition or to identify it with any known disease were unsuccessful. The authors believe the condition is sufficiently distinctive to merit consideration as a new disease.

Treatment of Chancroid with High Frequency Vacuum Electrode and Copper Sulphate Solution.

Jacob's paper is based on a study of fifty-two cases. Of these, four developed buboes, two of which resolved and two suppurated. Thirty-nine healed within two weeks, seven in three weeks, and six in from three to five weeks. No ulcer showed any tendency to spread after treatment. The cases detailed may well be compared with sixty-three cases of chancroids treated according to older methods, including treatment with: argyrol, calomel, black wash, dusting powder, phenol, iodin, iodoform, etc. Twenty-eight of these developed buboes, and had come under observation six months before. The reason for not having a larger percentage of early cures, Jacob thinks, is undoubtedly due to irregularity of attendance on the part of the patient. The method of treatment used was that first described by Robbins and Seabury in The Journal, October 13, 1917, p. 1217.

Syphillis of Prostate.

Only twenty-four cases purporting to be syphilis of the prostate have been recorded in the literature, and of these only twelve, or 50 per cent, are accepted as authentic. Thompson adds one case in which the diagnosis is said to be indisputable.

Venereal Prophylaxis.

In order to determine, if possible, whether the use of prophylaxis prevents one type of venereal disease more than it does another, a comparison was made by P. M. Ashburn, Washington, D. C. (Journal A. M. A., May 8, 1920), of the relative proportions of the three diseases in the first 2,000 cases in which infection followed the use, and in the first 2,000 in which it followed neglect of prophylaxis. These figurues show: Without prophylaxis, gonorrhoea, 67.2 per cent; chancroid, 15.6 per cent; syphilis, 17.2 per cent. With prophylaxis, gonorrhea, 64.5 per cent; chancroid, 18.9 per cent; syphilis, 16.6 per cent.

Arsphenamin.

According to J. A. Kolmer and Elizabeth M. Yagle, Philadelpphia (Journal A. M. A., March 6, 1920), who have studied and compared arsphenamin and neo-arsphenamin, all solutions of arsphenamin are hemolytic owing to the activity of arsphenamin itself. Solutions of arsphenamin in isotonic saline solution are more hemolytic than dilute solutions. Neo-arsphenamin is hemolytic in dilute solutions while concentrated solutions, such as 0.9 gm. in 30 c.c. of water or less are not hemolytic owing to the organic salts from the drug to render the solution approximately isotonic. To avoid hemolysis in the administration of dilute solutions of neo-arsphenamin sterile physiologic sodium chlorid solution in freshly distilled water should be used; when the concentrated solutions are administered, sterile distilled water should be used. "The degree of hemolysis produced by the administration of arsphenamin may be lessened (a) by using instead of water sterile saline solutions of such strength as to render the solutions isotonic; (b) by avoiding the administration of concentrated solutions; (c) by carefully

neutralizing and 'clearing' the solution with sodium hydroxid, counting the drops or otherwise measuring the amount in excess, necessary, and adding not more than a fifth of this amount in excess, and (d) by giving the injections slowly so as to permit gradual mixing and dilution of the solution with the blood."

Gynecology and Obstetrics

Robt. E. Seibels, M. D., Department Editor

Urinalysis During Pregnancy—It is the usual practice for an obstetrician to make a routine examination of the urine of his cases at stated intervals and in the normal case this is sufficient. Early cases of toxemia will frequently show albumen and casts only at certain times of the day—after exercise and a heavy meal, perhaps—therefore in such cases it is a distinct advantage to have a portion of the 24 hour amount. If the large container be marked off in ounces, the patient can readily inform the physician of the total amount passed: this specimen can be examined with the assurance that if renal insufficiency has supervened, it can be readily detected. And this specimen can further be used for the determination of the ammonia and urea nitrogen, for knowing the whole amount of urine in ounces it is an easy matter to calculate the nitrogen bodies in grams. Another advantage is that the patient can see for herself that her urine secretion is equal to or below the normal marked on the bottle by her physician and thus be the more readily induced to increase her fluid intake. A recent case under observation illustrates the value of this procedure—a specimen voided early in the morning yielded practically a normal report, while one taken from the total urine passed in the next 24 hours showed a heavy trace of albumen, hyaline and granular casts.

Malignant Myomata and Related Tumors of the Uterus: Newton Evans; (Surg. Gynec. & Obst; 1920, XXX, 225.) In a series of 4,000 operations for uterine fibromyoma, the author found 72 cases where the histology of the sections showed malignant non-epithelial neoplasma. These tumors have a color and consistency which are characteristic; the color may be said to be a shade including pink, yellow and gray. Fixed gross specimens have a yellowish tinge, which distinguishes them from the ordinary fibroid. "The tissue is much softer and has a smooth homogeneous cut surface as compared with the firm fibrous surface of the usual fibroid, and is decidedly more friable. In the definitely malignant forms the tumor mass is still more friable and varies in color, due to haemorrhage and degenerative and necrotic changes. In most of the tumors of the definitely malignant type, the infiltration and destruction of the uterine and other pelvic structures involved is evident, but the less malignant forms are usually as definitely delimited from the surrounding myometrium as is the ordinary fibroid." Matastases to distant organs were not found in this group—diffusion being entirely by direct extension—and from this viewpoint they may be said to be of comparitively low grade malignancy. But since they show rapid and extensive infiltration, these tumors must be classified as extremely malignant.

Uterine Rupture After Pitutary Extract.

Alice F. Maxwell, San Francisco (Journal A. M. A., May 15, 1920) records the case of a woman, aged 44, multipara, who at term had a sudden hemorrhage without pain. Examination revealed a soft abdomen, left occipito-anterior position, with a floating head. The cervix was undilated, and there were no signs of hemorrhage. The uterus was irritable, and contracted irregularly. One hour later the membranes ruptured spontaneously. Five hours later, weak pains began. Because of the good condition of the mother, the absence of fetal heart sounds and the cessation of all signs of hemorrhage, there was no indication to deliver the patient. One-third c. c. of pituitary extract (pituitrin, B. W. & Co.) was given intramuscularly, and the pains, which had been irregular, became more frequent and stronger. For one and a half hours the advance of the head was slow but steady, and then the pains became very weak and infrequent. The patients condition at this time was good. With the head at the level of the spines, one-third c. c. of pituitary extract was repeated. Contractions began immediately, but were not tetanic, yet in a few minutes the patient complained of air

hunger, went into extreme shock, and died within a few minutes after the administration of the drug. At necropsy when the abdomen was opened, there was considerable free blood in the pelvis. The fundus of the uterus was intact, but the entire lower uterine segment to the right of the midline posteriorly was so thinned that only the peritoneum remained, and the body of the child could be seen through this layer. Here there were two slitlike ruptures of the peritoneum about 4 cm. long. When the uterus was opened, the placenta was found attached to the fundus, but had separated over an area about 5 cm. in diameter. This condition explained the bleeding during pregnancy. An incomplete rupture was present on the right side, extending into the broad ligament through the uterine vessels. There were no predisposing causes of rupture in this case, that is, no cicatrix from previous operative procedures or sepsis, nor prolonged labor, the duration from first pain to time of rupture being less than six hours. Pituitary extract employed in a conservative manner was administered in the presence of well established indications and in doses well within the limts of safety, with disastrous results. This report should serve to emphasize that: 1. There is danger in the indiscriminate use of hypophysial extract in labor, especially in the doses usually given, namely, 1 c. c. ampules. 2. Even when employed for the strictest indications and in small doses, complications may ensue so rapidly that they cannot be met adequately even in well equipped hospitals.

The Future of Obstetrics and Gynecology.

The topics considered by Reuben Peterson, Ann Arbor, Mich., (Journal A. M. A., May 15, 1920), in his address, as chairman, read before the Section on Obstetrics, Gynecology and Abdominal Surgery at the seventy-fifth annual session of the American Medical Association, New Orleans, April, 1920, are: the specialty of obstetrics and gynecology; training of the specialist in obstetrics and gynecology, and the relation of abdominal surgery to obstetrics and gynecology. He states that the trained obstetric and gynecologic surgeon must be versed in abdominal as well as pelvic surgery in order to be competent to meet the emergencies that will arise in his special surgical work. While making no claims for specialization in abdominal surgery, the obstetric and gynecologic specialist must be prepared at any moment to resect the intestine and care for the appendix and gall bladder, if such surgery is demanded when the abdomen is opened for pelvic disease. This is only justice to the patient, and is common sense as well. In order to be competent in surgical work of this description the obstetrician and gynecologist must not only have had the necessary technical experience but must be conversant with the literature and the constant improvements taking place in abdominal surgery. Actual experience and technical skill in abdominal as contrasted with obstetric and gynecologic surgery should be acquired in departmental hospital clinics by co-operation with the general surgical clinics. Arrangements can easily be made for interchange of services at some period of the training, to the mutual benefit of the members of both the obstetric and gynecologic and general surgical staffs. In fact, this principle of free interchange of services should not be confined to surgery alone, but should apply to all departments of the hospital, where such an arrangement will make for better training in obstetrics and gynecology.

Pregnancy in Rudimentary Horn of a Bicornate Uterus.

The interesting features of the case cited by George L. Brodhead, New York (Journal A. M. A., May 22, 1920), were: 1. The patient had been pregnant four times in the right horn of the uterus before becoming pregnant in the rudimentary left horn. 2. The left ovary contained the corpus luteum of pregnancy and there was a well marked fimbriated extremity of the left tube, but no tube could be discovered. 3. The uterus appeared to be no larger than the usual size before pregnancy, and seemed to have developed chiefly from the right mullerian duct.

In the treatment of the bites and stings of poisonous insects, slices of raw onion placed over the parts, binding it on firmly and changing it once in two or three hours, has been found very efficacious.—Practical Med. and Surgery (November, 1919).

Orthopædics

Alonzo H. Myers, Department Editor

The Scope of Orthopaedic and Reconstruction Surgery.

The demands made upon the energy and ingenuity of the Orthopaedic Surgeon are today greater than ever before. There has been added to his regime in civil and industrial life a broad and diversified work in a new field, that is the formidable array of complicated surgical conditions which have been evolved from the recent war. Orthopaedic Surgery is being forced into especially strong relief because of the fact that a very large percentage of all the surgical affections produced by this war belongs to the category of deformities and distortions amenable to corrective surgery. This I have observed to be true throughout my work in the army and it still holds good in my work as consulting Orthopaedic Surgeon to the 5th District.

The efficiency of modern orthopaedic treatment in military work can be no better appreciated than by a statement of Gothwait, "that of 1,350 cases discharged from the Orthopaedic center at Shepherd's Bush Hospital in a given period, just about 1,000 were sent back into the army as class A, class B and class C men, and of this number 294 were class A men. The remaining 350 cases were sent back into civil life better, and industrially trained, so that although crippled they were still of use to themselves and the community."

The broad scope of military orthopaedic surgery as defined by both the United States and the British governments' classification is shown by the following table.

United States and British governments' classification of Orthopaedic Surgical Conditions:

(a) Derangements and disabilities of joints including ankylosis.

(b) Deformities and disabilities of feet such as Hallux Valgus, hallux rigidus, hammer toe, metatarsalgia, painful heels, flat or claw feet.

(c) Mal-united or un-united fractures.

(d) Injuries to ligaments, muscles and tendons.

(e) Cases requiring tendon transplanting or other treatment for irreparable destruction of nerves.

(f) Nerve injuries complicated with fractures or stiffness of joints.

(g) Cases requiring surgical appliances including artificial limbs.

The magnitude of the problem which such a classification imposes, is shown by the fact that in all the estimates of the percentages of the injuries requiring orthopaedic treatment that it has been possible to obtain ,none has been less than 30 per cent, while others have been as high as 52 per cent.

NEUROLOGY.

R. F. Leinback, M. D., Department Editor.

Lethargic Encephalitis.

A. Y. P. Garnett, Washington, D. C. (Journal A. M. A., May 8, 1920), reports a case of pregnacy and labor complicated by lethargic encephalitis. The particularly interesting part of the case from an obstetric point of view was the apparently painless labor and the partial paralysis of the bladder, indicating that there may have been some destruction of the posterior nerve roots simulating tabes dorsalis.

Epidemic Encephalitis.

Netter estimates at 500 the recent cases of lethargic encephalitis at Paris. Other speakers commented on the variety of forms the disease is now assuming, even walking cases. Labbe and Hutinel report a case with lyphocytosis and excessive amounts of glucose in the lumbar puncture fluid. Others report series of cases with delirium and hallucinations. Morax and others discuss the ocular symptoms, and Weil describes a case with symptoms indicating involvement of the spinal cord.

Bilateral Sympathetic Ophthalmoplegia.

William B. Cadwalader, Philadelphia (Journal A. M. A., May 8, 1920), in commenting on the diagnostic importance of the occurrence of bilateral sympathetic ophthalmoplegia in cases of lethargic encephalitis says that bilateral involvement of the sympathetic fibers of the eyes can be caused only by a diffuse or inflammatory lesion of the

brain stem, so that when it is associated with the characteristic mental confusion of lethargic encephalitis it should be regarded as a diagnostic sign of that disease. However, because of the bilaterality of the narrowing of the palpebral fissures and contraction of the pupils, it is not likely to attract attention and is overlooked; but when it occurs only on one side at the time, the contrast quickly directs attention to it. Bilateral sympathetic ophthalmoplegia is not known to occur in other diseases.

State Medicine

L. B. McBrayer, M. D., Department Editor

Teaching Rather Than Treating.

"Teaching, rather than treating, is becoming a vital factor in professional medicine. Information will prevent almost any disease. Let me say a word for the nurses. They are doing an invaluable work, spreading the gospel of prevention."—Dr. Joseph Bloodgood, John Hopkins University.

ABOUT FACE MASKS.

The mask used by the profession as a practical measure of prevention against the infection of influenza is worth as much, perhaps, as the eating of onions, the wearing of asafetida about the neck, the many arts and schisms resorted to on the part of many cults and religious sects. The writer does not wish to go on record against the use of the mask as a preventive measure against the spread of the infection of influenza, but, as a practical prophylactic measure, he would have as much faith in the one commonly used as that cited by the laity. In our hospitals for infectious and contagious diseases, where the physician can carefully attire himself with gown, cap and mask, it would be practical and of accepted virtue as a precautionary method against the spread of the disease from the daily wearing apparel. For the protection of the individual who wears the mask, the writer can not see the logic of its use as a practical preventive. 5The real virtue to be received from its use would be the object lesson it would have for the laity and those under quarantine, and would demand on their part a better co-operation and a more careful procedure in their efforts to assist the profession or the epidemiologist.—Dr. S. D. Hatfield, in West Virginia Med. Jour.

DIAGNOSIS OF TUBERCULOSIS OF THE KIDNEY.

Daniel N. Eisendrath (South Med. Jour., November, 1919) considers the following as the most important data upon which to base a diagnosis of renal tuberculosis: 1. Bladder Symptoms. (a) Increased desire to urinate, at first often at night, but later diurnal; (b) painful urination, concomitant with the increased frequency, which gradually becomes more and more severe; and (c) incontinence or great irritability as the bladder involvement progresses, so that the patient is unable to control urination. 2. Kidney Symptoms.—There is either a dull ache or there are recurrent colicky pains on the affected side or on both sides in bilateral involvement. Enlargement of the kidney is a very unreliable finding. It may be absent altogether and the opposite kidney may be compensatorily enlarged. The same is true for tenderness over the diseased kidney. Rigidity is only found when there is an invasion of the perinephric tissues. 3. Fever.—There is little as a rule unless there is a mixed infection present or a sudden retention. 4. Urinary Findings.—Pyuria may be present except in cases of closed pyonephrosis or in the early stage of mixed infection cases. Hematuria may be the first symptom or may appear with pyuria at intervals. Tubercle bacilli can be found in the urine in 80 per cent of the cases by the Forsell or Crabtree method. 5. Cystoscopy and Ureteral Catheterization.—This is the most important single method of diagnosis. Unless changes specific of tuberculosis are found in the bladder it is best to suspend judgment until the urine obtained by ureteral catheter has been studied by culture and staining methods. 6. Pyelography and X-ray.—These are very important and should be done as a routine in all cases if possible, for they yield much information as to the changes in the renal pelvis and parenchyma.

X-Ray and Laboratory

Robert H. Lafferty, M. D., Dept. Editor.

The meeting of the A. M. A. is a sort of clearing house for all the new things in medicine.

More favorable reports on pneumoperitoneum were made and many slides were shown illustrating the value of this method of diagnosis in obscure abdominal conditions. No unfavorable results have been reported. The use of carbon dioxide instead of oxygen has been recommended on the ground that it absorbs more quickly.

Cole and Littman of Cleveland presented a study by means of the roentgenogram of the absorption of mercury injections. The results were interesting in helping to select the best salt and to regulate dosage.

The value of the combined x-ray and radium treatment in deep malignant conditions where the radium can be applied locally and the x-ray by the deep therapy method through many skin areas was emphasized in many papers.

Detection of Bile Pigments in the Urine.

Rosenberg (Apoth. Zeit.) reports that when to 10 mils of a 20 per cent caustic potash solution and 2 or 3 drops of a 10 per cent copper sulphate solution are added, an olive green color is produced when the urine contains bile pigments. The other constituents of the urine do not influence the reaction, which is claimed to be very sensitive.

Hospitals and Sanatoriums

John Q. Myers, M. D., Department Editor

Advertise the Training School.

Since the establishment of training schools, there has never been a time when more attention was being given to how and where to advertise the training school, and never a time when it was more needed. Hospital schools having a waiting list of prospective pupils are few and far between, and superintendents of a great many schools are wondering who will take the places of the nurses who will graduate this spring.

A number of hospitals are employing a recruiting nurse who will devote herself to the one task of arranging for personal conferences with young women regarding the wonderful opportunities that are offered to the young woman who has a nurse's training; to speaking before Christian Endeavor societies, and young people's organizations in general, and to such other forms of publicity as may be possible and desirable.

The Illinois Council on Nursing Education at a recent meeting in Chicago, decided on what is probably the most ambitious program of publicity for nursing that has been attempted in any state. The effort is to be directed not only toward young women, but parents and the general public are to be included in the scheme of publicity.

Taking advantage of the Nightingale Centennial, a moving picture film is to be used, which will show the pupil nurse in various stages in her hospital course, the attractive homes now so generally provided for nurses, and the social life of the school. Another film will be used based on the dramatic incidents in the life of Florence Nightingale.

Miss Katherine Olmsted ,who is the executive secretary of the council, is to have charge of the campaign of publicity in Illinois. She recommends that an effort be made to secure the co-operation of prominent physicians, business men and others well-known to the public who would be asked to prepare articles for newspapers over their own signature giving the result of their own impressions and observations regarding nursing as one of the great careers now open to women.

Mailing lists of young women now in high schools and approaching graduation, should be prepared, and every such young woman should receive an invitation to correspond with the council in regard to nursing. A general leaflet should be provided by the council to be used by all hospitals and, in addition, each hospital should have literature of its own describing its school and course of study.

In most schools this year there will be a special effort to make the graduation exercises more inspirational and spectacular in character than ever be-

fore through the use of tableaux, chorus singing, etc.

The Nursing Department of the American Red Cross is conducting another experiment in publicity. While this is primarily intended to stimulate interest in public health nursing it should incidentally help the recruiting of pupil nurses.

Miss Elizabeth Walsh. formerly connected with the Peter Bent Brigham Base Hospital, is speaking throughout Pennsylvania and in two months visited 31 towns and villages. She secured her audiences in churches, business colleges, factories, high schools and in some cases in private homes.

Immediate results from these efforts may not always be secured, but it all seems to be very well worth while, and in keeping with the spirit of the times. Business colleges and correspondence schools for years have employed recruiting agents on salary. They have made a specialty of getting into direct personal touch with high school graduates and presenting to them the unusual opportunities before the young man or woman with a business education. The effect o ftheir work is apparent this year as never before. One calculating hospital superintendent has stated that if a recruiting agent did no more than bring in six desirable candidates in six months she would be justiefied in employing such an agent solely for her own institution.

Nurses Corner

Edith M. Redwine, R. N., Dept. Editor

The North Carolina State Nurses Association has just closed one of the most successful meetings ever held in point of interest and attendance—there being more than 120 nurses present and every branch of the nursing service well represented.

The whole trend of the meeting was for higher ideals and standards and the betterment of conditions in the hospitals of the south so that Southern women will remain in the south as students and workers.

In bidding the nurses welcome to the "Queen City" Commissioner A. H. Wearn paid a high tribute to the nursing profession and delivered the keys of the city. Speaking for the Mecklenburg County Medical Society Dr. C. M. Strong also paid a high tribute to the profession and spoke of his peculiar interest in the work of a nurse having been a teacher of nurses since the first training school was established in Charlotte and now has the honor of being on the teaching staff of four hospitals.

Miss Eugenia Henderson, superintendent of the Presbyterian Hospital, spoke of the inspiration that the coming of the nurses to Charlotte would bring to the newly formed district.

To these addresses Miss Blanche Stafford, president of the association, responded as follows:

"Years and years ago a little body of men gathered together in this city for the purpose of signing the Mecklenburg Declaration of Independence. Today a little band of women is gathered together in the same city to prove that they too are living for those who come after them. They are determined that America shall not only be a land of freedom but hand in hand with freedom shall go the right to a happy and healthy infancy and childhood.

To our shame America now stands fourteenth in its standards of maternity and child well being, 23,000 mothers and a quarter of a million babies die annually, largely from preventable causes.

"We are determined that this condition shall be remedied. North Carolina is in the lead in this fight, through its State Board of Health, Bureau of Infant Hygiene, its doctors and nurses.

"Not alone the public health nurses but every woman in the profession is preaching the good gospel of healthy infant hygiene and prenatal care.

"The North Carolina State Nurses Association appreciates the privilege of meeting in Charlotte at this time. We want to learn more of the work carried on by your doctors, splendidly equipped hospitals and nurses and your well organized system of public health nursing. Your public health system is the best organized in the state. We feel that our stay here shall be pleasant and profitable. We invite the people of Charlotte to meet with us tonight and tomorrow night as we wish them to know the many things we are striving to do. We feel that the doctors are always our faithful allies but we need the assistance of the great public too.

"You have recently heard much of the shortage of nurses, both pupils and

graduates. We feel like saying in the language of our beloved Florence Nightingale. "O, my fellow countrymen why do you hang back.' We are beset with offers for trained nurses and trained superintendents and we cannot fill them. I would that I could go out into the highways and hedges and compel them to come in.'

"When the first sun dried the first dew on the first grass human nature appeared and has been with us ever since. Unfortunately a special brand was not set aside for trained nurses. The universal spirit of unrest has invaded our ranks to a certain extent.

During the recent war our women gave so gloriously and unselfishly of their service and even their lives that some degree of reaction is to be expected. Meanwhile we wait with patience for the readjustment knowing that the blessed spirit of service will always live in the hearts of our American women."

The public health section under the direction of Miss Rose Ehrenfeld, Director Bureau Public Health Nursing and Infant Hygiene, State Board of Health, presenting an unusually interesting and instructive program, valuable papers and addresses upon the following subjects being read and discussed.

"The State Plan for Public Health Nursing"—Rose Ehrenfeld, Director Bureau P. H. Nursing and Infant Hygiene, State Board of Health.

"County Development"—By following County Public Health Nurses: Clara Ross, Lou London, Mabel Craft, Alice Ward, Mettie Owen, Florence Bean, Mrs. Bassett, Martha Newman, Mrs. Wilburn, M. L. Cutchin, Harriett Arrington, Flora Wakefield, Stella McCartney, Mrs. Hargrave, Mrs. McManus.

"National Organization Public Health Nursing"—Mrs. Lionel Weil, Lay-Member, "Council State Representatives."

"State Venereal Disease Campaign"—Alice L. Ward, Gaston County, P. H. N.

"Rural Health Centres"—Virginia Gibbes, Field Dir. Sou. Division A. R. C.

"Unit of Tuberculosis and County Clinics"—Dr. L. B. McBrayer, Supt. State Sanatorium and Chief Bureau Tuberculosis, State Board Health.

"Infant Hygiene Unit"—Katherine Myers, Bureau P. H. N. & I. H. State Board Health.

"Midwife Situation in North Carolina"—Dr. F. M. Register, Deputy State Registrar and Epidemiologist.

Miss Jane Vande Vrede, Director Southern Division, American Red Cross Nursing Service, Atlanta, was present and spoke of "The Nurse and Sanitary Science."

Dr. C. C. Applewhite, Assistant Surgeon, U. S. Public Health Service, Washington, D. C. in speaking of "Health in Rural Communities," stated that the draft showed up a marked difference in the health of country boys and city boys and explained that this was undoubtedly due to the better sanitary arrangements in the city.

Dr. W. S. Rankin, President American Public Health Association, in an interesting address stated: "that the health and disease problem shifted several years ago from symptoms to causes, which likewise shifted them from indivudual to community problems. The problem now is making the healthy healthier, the fit fitter, he said, stating that within a year or two every county in the state will have a public health nurse, this being the best possible agency for educating the people to favor public health measures. He advised the county health nurses to be careful not to take on too many things to do, but to pick out a few of the important things and carry them through."

The North Carolina League of Nursing Education came together in its second annual session with much enthusiasm. The following papers were read and discussed with interest:

"How may the eight hour day be installed in the average hospital"—Miss Winifred Atkinson, superintendent of nurses, Watts Hospital, Durham, N. C.

"How may the standard Curriculum be modied to meet the needs of the average hospital training school?"—Miss Cornelia Mims, superintendent, Charlotte Sanitorium, Chorlotte, N. C.

"How can schedules for class and lecture work be arranged to fit in with ward routine and nurses hours?"—Miss Mary P. Laxton, superintendent Clarence Barker Memorial Hospital, Biltmore, N. C.

"What can be done to stimulate interest in class work, and keep the students up to a good standard of work?"

"The necessity of standardizing hospitals and nurses' training schools and the advisability of appointing a board of censors."

In the discussion following Miss At-

kinson's paper the general opinion did not favor an absolute eight hour law or standard for nurses since the nursing profession is not a trade and cannot be confined to a basis of dollars and hours.

Dr. J. P. Monroe, of Charlotte, and Miss Jessie McLean, of Greensboro, in speaking of "Nursing Education in North Carolina" emphasized the fact that the training of a nurse is an education, and that the North Carolina State Law relating to professional nursing allows for credit of not more than one year to college graduates.

An important topic was "The introduction of Public Health Nursing into the Training of the Student Nurse." Miss Mary B. Harris spoke of the good work that had been accomplished in one locality through the co-operation of nursing schools.

Miss Fannie Vaughn Andrews, superintendent Asheville Mission Hospital, made some splendid suggestions for the recruiting of student nurses.

Miss Effie Cain, secretary State Board of Examiners for Nurses, spoke of the unfairness to the student nurse when she was admitted to the training school and allowed to complete the three years' course and then failed to pass the state examination because she did not have the preliminary educational qualifications.

In speaking of the question, "Should practical work in Tubercular Nursing be introduced into the training of the Student Nurse," Dr. J. W. Huston, dean School of Nursing, Clarence Barker Memorial Hospital, Biltmore, gave some valuable information and suggestions. He stated that there was no question but that the nurse should receive training along this line both for her own protection and that of her patients. That there is no more danger in the nursing of tubercular patients than any other class when proper precautions are taken.

Miss VandeVrede spoke interestingly on many phases of the work and laid much stress on Southern traditions and the need for Southern women remaining in the South in order that these traditions might be carried on.

The question "How may closer co-operation be established between Boards of Trustees and the Training School" brought out valuable points.

A private duty section was organized which expects to do much for the private duty nurses.

Much appreciation was expressed by the nurses for the valuable assistance rendered by the doctors in making the meeting a success.

The next convention will be held at Wrightsville Beach.

The newly elected officers are Mrs. Dorothy Hayden, Greensboro, president; Miss Mary L. Wyche, Henderson, first vice president; Miss Pearl Weaver, Asheville, second vice president; Miss Carolyn Miller, Winston-Salem, secretary; Miss Jessie McLean, Greensboro, treasurer.

Directors for two years: Miss Eugenia Henderson, Charlotte; Miss Nort Pratt, Raleigh, for one year: Miss Josephine Mainor, Durham; Miss Columbia Munds, Wilmington; training school inspector, Miss Edith Redwine, Monroe; on state board of nursing examiners: Miss Mary P. Laxton, Biltmore; Miss Lois Toomer, Wilmington.

Of interest to their many friends will be the announcement recently made in Asheville that Dr. Margery J. Lord, city school physician, and Miss Belle Setzer, R. N., will go to Africa in September as missionaries.

They will serve under the Southern Presbyterian Mission Board, Dr. Lord as medical missionary and Miss Setzer in the field.

Dr. Lord is a graduate of the medical department of the University of Michigan and has resided in Asheville for several years.

Miss Setzer is a graduate of the Morrison Industrial Training School at Franklin, N. C. and of the Appalachian Hall Training School for Nurses in Asheville with affiliated work at Long Island hospital, New York. She passed the North Carolina state examination for nurses last year.

Several North Carolina Nurses were in the recent graduating class of the School of Social Work and Public Health at Richmond, Va., among them being Mrs. Dorothy Hayden of Greensboro, N. C., newly elected president of the North Carolina State Nurses Association.

This school offers instruction to graduate nurses in courses of social work, one and two year, recreation and physical education, one year and public health nursing four and eight months.

Book Notices

All new publications sent to the Journal will be appreciated and will hereafter be promptly acknowledged under the heading of "Publications Received." It will be the aim of the Journal to review as many of the books received as possible, yet the Editor must be guided by the space available and the merit and appropriateness of respective publications. We want our readers to know about new publications that might be to them helpful and interesting.

The Care and Feeding of Southern Babies—a guide for mothers, nurses and baby welfare workers of the South—by Owen H. Wilson, M. D., professor of Diseases of Children, Vanderbilt University, Baird-Ward Co., Nashville, Tenn., 132 pages—price $1.25.

The purpose of the author has been to make this treatise as practical as possible and applicable to the restrictions in diet and clothing for Southern babies. He has avoided ultra-scientific and professional discussions especially addressing himself to the non-professional reader—but nevertheless the teachings are so sane and practical that the doctor may use it as a text.

Third Annual Report of the Department of Health for the City of Winston-Salem, R. M. Carlton, M. D., Health Officer.

Pennsylvania Health Legislation of 1919.

"The Pembroke Mason Affair," by George Barton, author "Celebrated Spies and Famous Mysteries of the Great War," "The World's Greatest Military Spies," etc., The Page Co., Boston, $1.65.

"Further Chronicles of Avonlea," related by L. M. Montgomery, author of "Anne of Green Gables," "Anne of Avonlea," "Anne of the Island," "Chronicles of Avonlea," etc. The Page Co., Boston, $1.65.

"Principles and Practice of Infant Feeding," by Julius H. Hess, M. D., Professor and Head of Department of Pediatrics, University of Illinois College of Medicine; Chief of Pediatric Staff, Cook County Hospital, etc. Illustrated. Second Revised Edition, 344 pages. F. A. Davis Co., Philadelphia. Price $2.50 net.

In the preparation of this Second Edition changes have been made in chapter on Artificial Feeding in that an absolute relationship between the quantity of the individual food elements of the diet and the requirements of the infant per pound body weight of fat, protein, carbohydrate, salts and water for growth and development are made the basis for preparation of diets.

This establishes a fixed basis for comparative quantitative studies of relation of diet to growth and development independent of the size and frequency of feedings, and the percentage composition of the mixture.

The author has condensed in most concise form the salient points of his subject and presents a book that is not unwieldy but is really useable.

"Regional Anesthesia" (Victor Pauchet's Technique), by B. Sherwood-Dunn, M. D., Officier d' Academie; Surgeon (Colonel) Service de Sante Militaire de Paris; Physician to the Cochin Hospital. 294 pages with 224 figures in the text. F. A. Davis Co., Philadelphia. Price $3.50 net.

For thirty years Professor Reclus preached and practiced local anesthesia. His method consisted in infiltrating the tissues upon which he proposed to operate.

Regional anesthesia differs widely from the Reclus method. Instead of applying the anesthetic to the terminals of the nerves it is injected at the point of origin, or along the trunk near the point of origin, so that the whole region supplied by the nerve and its branches is anesthetized.

Major operations as well as the most delicate minor operations can be performed in this way.

Professor Victor Pauchet is acknowledged to be the leading exponent of regional anesthesia in France, and this book constitutes a resume of his writings upon the subject, together with observations of the author and others.

News Items

Dr. R. L. Pittman, Fayetteville, N. C., announces the completion of his new private hospital where he will devote his entire time and attention to the treatment of medical and surgical diseases.

Dr. Hamner C. Irwin announces his association at Pocatella, Idaho with Dr. H. Smith Wolley. Practise limited to consultations and general surgery.

Dr. E. C. Pierce, optometrist and optician, formerly of Newberry, S. C., has located in Gastonia, N. C. He is a native of North Carolina but has been out of the state for the past 13 years.

Dr. B. O. Edwards announces the opening of his office and laboratory at 15 Haywood street, Asheville, N. C. Practise limited to the diagnosis and treatment of tuberculosis.

Married—Dr. E. G. McMillan, Maxton, N. C. to Miss Dodd of Greenville, S. C.

Lawrence Clinic.

Lawrence Clinic announces the opening of group practice June 1st, 1920: C. S. Lawrence, surgery; J. E. Daugherty, eye, ear, nose and throat; W. C. Stirling, urology; R. D. Swaim, internal medicine and laboratory diagnosis; G. C. Cooke, associate in surgery, X-ray diagnosis; corner Fifth and Cherry streets, Winston-Salem, N. C.

The Baptist Memorial Sanatorium is working out plans to make Dallas, Texas, the medical center of the southwest by the building and equipment of a hospital and medical college to be the equal of any of the larger institutions of the country. Funds are being raised for the purpose. The Baptist Memorial Sanatorium, Baylor Colleges of Medicine, Dentistry and Pharmacy, and the Baptist Training School for Nurses will be used as the basis to elaborate and form such a medical center.

Burn Third of City Because of Plauge.

It is reported that one-third of the houses of Vera Cruz will be burned because of the bubonic plague infection, it has been decided by the citizens of that city, according to The Excelsior today.

A. E. F. Banquet.

Thirty-three veteran madical officers held a real A. E. F. banquet at the Charlotte Country Club the evening of May 24. The hosts of the evening were Drs. Matheson, King and McKay. Certainly there was in evidence no "vermuth cassice", "van rough" or "madamoiselles," however 33 busy doctors voted the evening entirely satisfactory in every respect and some one was overheard to say "it reminded one of the good old days."

While discussing the desirability of having such a "family dinner" every year, some one thought that was too long—that it ought to be at least once a month—when another insisted "Oh every week."

Charlotte medical officers, dressed in uniform in which they last served, attended in a body the memorial services and Decoration Day ceremonies May 30th. Just prior to joining the parade to go to the cemetery, 28 Mecklenburg doctors assembled at the Manufacturers' club for a group picture which will be presented to the Mecklenburg Medical society. It must never be forgotten that Charlotte gave a higher percentage of her doctors to the country's service than any other city or county medical society in the entire United States.

SOUTH CAROLINA MEDICAL SOCIETY MEETING.

Greenville, S. C., April 20-21.—At this meeting was presented a full program of papers on very interesting and pertinent subjects.

Francis B. Johnson, M. D., Charleston. This paper states that perhaps it is quite frequent that malaria has been mistaken for pulmonary tuberculosis and vice versa in the southern states, probably more so here than elsewhere because of the wide spread prevalence of both diseases. Of course not infrequently they co-exist.

The atypical malarial conditions are more usually associated with the cronic infections of the pernicious type, particularly those not characterized by a definite paroxysm.

Among conditions which have recovered under quinine treatment are found, diarrhea, dysentery, various types of neurasthenia, paralysis, multiple gangrene and many diseases of the eye.

J. F. Munnerlyn, Columbia, emphasized that it is becoming more and more evident that in children who have certain slight or grave defects in their nervous make-up, something in their development has not gone right—somethin ghas gone wrong in the realm of mental function from which spring desires and motives.

To locate and correct this trouble, would in the case of many unfortunate individuals, who are at present steering directly toward an inevitable nervous break down, bring about lives of happy and efficient usefulness.

Dr. J. W. Babcock, Columbia made the appeal for greater care in the making out of certificates of insanity. The physician who signs a commitment without making a careful examination and going carefully into the case does a serious injustice to the patient and to himself. There is an indifference in this matter on the part of physicians generally and which is taken advantage of by persons who may have relatives they wish to get rid of.

Dr. George Benet, Columbia, reported a case of malignant tumor of male breast. This was a fibro-adenoma with a malignant degenerative process in a young man 18 years old. There was no glandular development. Patient was somewhat feminine in appearance and with hypo-muscular development.

Dr. Lindsay Peters, Columbia, advocated the application of Zinc oxide adhesive plaster directly over raw surfaces of denuded areas of skin to induce the rapid growth of epithelium. When the wound is clean, adhesive plaster is placed directly on the wound without the interposition of gauze or other material,—the wound being completely covered either with a single piece or overlapping strips. Dressings should be done daily.

The action of the adhesive plaster may be explained by its possible ionic effect by the production of edema, carrying out the idea of Bier's hyperemia, by the exclusion of air, destroying aerobic bacteria and by excess of serum bringing a new army of antibodies into play.

Dr. William R. Barron, Columbia, advocates in so-called idiopathic enuresis a treatment which consists in emptying the bladder with a catheter under aseptic precautions, and then instilling through the catheter a 3 per cent argyrol solution, letting same remain in the bladder for from one-half to one hour, when it is voided. This is done every day, or every other day, as indicated. The strength of the aryrol solution is gradually increased until 10 per cent is borne without irritation. Do not use strengths of argyrol that irritate, because they will not be retained and will cause the child to object to treatments. In boys the solution may be injected into the bladder through the urethra with a bulb syringe without using catheter. The urethra should be washed with sterile water after the argyrol is forced into the bladder.

Dr. Kenneth M. Lynch, Charleston, thinks the ordinary manipulation of a tumor in the course of examination may be the source of much more stimulation than would be an incision and emphasizes the necessity for the microscopic examination of all tumors. He belives that the advantages of submitting a specimen for microscopic examinations outweigh the disadvantages. The story of no tumor is complete without a microscopic examination.

Dr. Stuart McGuire, Richmond, said that, like the thermometer, basal metabolism promises to be a most valuable diagnostic agent although there has not yet been sufficient experimentation or practical experience to determine its exact clinical value. Like the thermometer its record must be considered together with the patient's clinical symptoms. The metabolic rate of the patient is a definite index of the degree of hyperthyroidism present, and therefore very valuable in making a diagnosis. The onset of hyperthyroidism is so slow that it is difficult to recognize it in its incipience; and here the metabolic rate will differentiate it from hysteria, neurasthenia, tuberculosis, and other conditions with which it may be confused. Usually, a patient's clinical symptoms coincide with his metabolic rate but sometimes they do not. Patients with high metabolism and moderate tachycardia are more seriously ill than those with moderate metabolic increase and a very rapid heart action. In treating a

patient for hyperthyroidism the estimation of the metabolic rate is of value, first, to determine the measures to be employed, and second to ascertain its efficiency.

Dr. T. M. Davis, Greenville, reports a series of 60 gonococcal urethritis cases in males treated with mercurochrome in 2.5 per cent strength. In almost all cases the discharge had ceased in 24 hours and in all cases by the end of the third day. And in a series of 95 female patients he reports no extension of the disease to the endometrium when treated by this method.

THE NORTH CAROLINA SECTION OF THE CLINICAL CONGRESS OF THE AMERICAN COLLEGE OF SURGEONS.

A state meeting organized along the lines of the National Clinical Congress of the American College of Surgeons comprising clinical demonstrations by prominent surgeons during the morning—meetings for the laity addressed by invited laymen and surgeons throughout the afternoon—the presentation of scientific papers by distinguished medical men from all parts of the country, with discussion throughout the evening—was considered by the North Carolina representatives of the American College of Surgeons in a conference May 17 at the O. Henry Hotel, Greensboro, N. C. with Dr. Franklin H. Martin, secretary general of the college.

Popular interest in surgery has increased many fold since the war. The National Clinical Congress of the American College of Surgeons, held in New York last October, attracted widespread popular interest, as well as that of the profession. More than 2,500 of the leading surgeons of North America attended this Congress, representing every state in the union and every province of Canada.

At that time tentative plans were drafted for holding a series of state and provincial medical meetings along the lines of the National Clinical Congress, and a committee was selected for North Carolina, one from each congressional district, and two from the state at large, to make the necessary arrangements.

Following is a list of the executive committee and the congressional representatives for the state.

Congressional Representatives North Carolina.

Chairman, Jacob Franklin Highsmith, Fayetteville.

Secretary, John Wesley Long, Greensboro.

Counselor, Hubert A. Royster, Raleigh.

Term Expiring 1920.

Senatorial, Samuel H. Lyle, Franklin.

Second District—James Marion Parrott, Kinston.

Fourth District—Hubert A. Royster, Raleigh.

Sixth District—Robert B. Slocum, Wilmington.

Eighth District—James E. Stokes, Salisbury.

Tenth District—Marshall Hall Fletcher, Asheville.

Term Expiring 1921.

Senatorial—Andrew J. Crowell, Charlotte.

First District—Julian M. Baker, Tarboro.

Third District—Richard N. Duffy, New Bern.

Fifth District—Charles W. Banner, Greensboro.

Seventh District—John Wesley Long, Greensboro.

Ninth District—Albert M. Whisnant, Charlotte.

This will bring to the state a new type of medical meeting—Congress where surgeons will get demonstrations of operative procedure in the hospitals where the meeting is to be held—and the laity will learn how their right to receive expert surgical care is being protected.

It will be of particular interest to North Carolinians to learn that this plan of state clinical meetings was first considered independently in North Carolina by the fellows of the American College of Surgeons in this state. They met on November 12th, 1919, at the Battery Park Hotel of Asheville and at the invitation of Dr. John Wesley Long of Greensboro.

Yesterday's meeting, at which Dr. Franklin H. Martin, secretary general of the college, was present, adopted unanimously the following resolution:

Resolved: That the North Carolina Section of the American College of Surgeons, which was organized November 12th, 1919, do hereby adopt the plan of organization proposed by Dr. Franklin H. Martin, secretary general and that the state organization shall be known as the North Carolina Section of the Clinical Congress of the American College of Surgeons.

This entitles North Carolina to be put first on the list of states to consider the forming of state associations of the National College of Surgeons and the holding of state clinical congresses.

The session closed with a banquet and an informal meeting at which Dr. Martin recounted the trip made to South America early this year.

Fallacies Regarding Narcotic Drug Addiction.

S. Dana Hubbard, New York (Journal A. M. A., May 22, 1920), believes that so long as addicts can obtain cheap supplies of drugs without personal risk, very few will apply for hospital curative treatment. Narcotic drug addiction can be stopped by sufficiently stringent laws, strictly and uniformly enforced. Public narcotic dispensaries are not desirable or satisfactory in dealing with the problem of drug addiction. This method has been given a careful, thorough and extensive trial in New York, and the conclusion has been reached that it is unwise to maintain such an institution. The clinic was found to possess all the objectionable features and opportunities of abuse presented by the ambulatory treatment of private physicians prescribing to the addict when at large, except one factor, namely, financial profit to a few physicians performing this character of service (fifty-five out of 8,400 registered in New York). Ample provision should be made for hospital or institutional treatment to cover the stage of withdrawal and for the control, care, and moral and mental as well as physical upbuilding of those persons who require it and show the possibility of profiting from such treatment. Prevent the addict from getting his drug, and in very many instances he will cure himself, and if unable to get the drug he will stay cured. It is always well to treat all cases under medical supervision, and physicians experienced in this line of medical practice know that a very small dose of the drug (from one-fourth to one-half grain hypodermically) will control all manifestations of withdrawal. Hubbard maintains that the work of reclaiming narcotic addicts is well worth while. Of the many undesirables, no less than one-half can be brought back to useful lives, and one-fourth should be in some institution where with suitable care and training, many can be made useful citizens instead of merely being impedimenta and parasites.

Anthrax.

A review of fifty-one cases treated at the Massachusetts General Hospital from 1888 to 1918 is made by Albert J. Scholl, Jr., Los Angeles (Journal A. M. A., May 22, 1920). Anthrax bacilli were found in 81.2 per cent of the cases. The mortality in the cases reviewed was 13.7 per cent. Four of nine patients (44 per cent) treated surgically died; only three (7 per cent) treated nonsurgically died. Forty-two patients had lesions on the face and neck. Cervical infections are especially dangerous; two of the patients treated nonsurgically died from respiratory difficulty resulting from the associated edema. The patients treated nonsurgically were confined to bed. Their lesions were left absolutely alone and exposed to the air; no special general measures were carried out. In several of the surgical cases a rapid increase in the edema, a steady decline in the patient's general condition, and death several hours later definitely pointed to the operation as the causative factor. The average duration of the disease in patients that recovered was twenty-three days. Death in the seven fatal cases occurred on an average of four days after the onset of the disease. Thirty-eight infections were in men engaged in handling hides; of these, twenty-three were leather tanners. All of the patients treated were males except one. This was a girl, aged 17, who was employed sorting bristles in a brush factory.

The Future of Otolaryngology.

This subject is discussed by Joseph C. Beck, Chicago (Journal A. M. A., May 22, 1920), under two heads: (1) development of an otolaryngologist, and (2) co-operation in otolaryngology. Speaking of the first head, Beck deprecates the fact that a number of graduate schools have made it possible for men to

become operating or treating otolaryngologists after a very short and inadequate course, and certainly without basic instruction. The by-word "six weeks specialists" has been coined to apply to such practitioners. To remedy this condition he proposes the establishment of a board of directors who should have absolute control of the development of the otolaryngologist, acting as advisory both to the institutions of learning or training, and to the student. It should, furthermore, determine the fitness of the applicant for training as well as practice. The plan to be followed is presented in detail. In considering co-operation, Beck dwells on what he terms "an epidemic of so-called group medicine or team work." He concedes that group medicine is one of the greatest factors in benefiting the people and furthering science, but insists that the group must be competent. What he objects to is the pretension group of so-called specialists combining for commercial reasons and causing a lot of trouble by making false diagnoses and performing unnecessary and poor operations. He indicates how the otolaryngologist can co-operate to advantage with other specialists, even the obstetrician and the urologist.

Medical Speech.

James S. McLester, Birmingham, Ala. (Journal A. M. A., May 8, 1920), offers some valuable suggestions to medical authors with regard to the preparation and presentation of papers. Although he fears being misunderstood, he likens the successful medical writer to the adwriter in that the legtimate aims of the two for a certain distance run parallel. The object of each is to say a great deal in a few words, to adhere consistently to the main idea, to emphasize the right point, to hold the reader's interest and to be readily understood. He says in part, "We often wonder why the literature of some of our English colleagues is so much more readable than our own. I think I know the reason. Is it not that, having little or no conscience for good English, we do not try? In this connection I might repeat the oft quoted statement that genius is an infinite capacity for taking pains. Careful revision of composition and paragraphs, and repeated revision of sentences is essential to the production of readable English. It is said that a good writer never ceases to revise his sentences, and that the lines which appear easiest are often the result of greatest effort. To go over it all time and again, to see to it that compound sentences are well balanced, to put the important word at the end of the sentence, and to avoid redundancy—this is the price one must pay for a sympathetic hearing and a lasting impression." The physicians who read papers before the sections of the American Medical Association are in possession of facts and conclusions of infinite importance. How necessary, then, that knowledge of such inestimable value be presented through a medium which is worthy of the subject! A poor lens in a microscope will obscure and distort the object one desires to study; in like manner will imperfections in the expression of our ideas mar and obscure and nullify the thoughts we wish to convey.

SIGNIFICANCE OF THE DIFFERENT TYPES OF PNEUMONIA FOLLOWING INFLUENZA

In a study of the pulmonary lesions following influenza, the impression was gained by B. S. Kline, New York (Journal A. M. A., May 8, 1920), that an associated pulmonary edema is a factor of great importance in determining the rapid extension of the inflammation throughout the lung, and that in the absence of this edema, the lesion remains localized about the bronchial branches The observations recorded in this paper were made during the epidemic of influenza in the American Expeditionary Forces' hospital center at Bazoilles, Vosges, France, between September 2 and December 27, 1918. About 200 patients died there with pneumonia following influenza, and of these 154 came to necropsy. In all cases there was a trachetitis and bronchitis. The most striking lesion, however, was observed in the lungs. In the vast majority (86 per cent.), the consolidation was widespread, involving three or more lobes; in one-half of the cases all five lobes were affected. The pulmonary consolidation in these cases varied in character; discrete lesions in some cases contracted sharply with confluent consolidation in others. The discrete lesions were peribronchial and peribronchiolar; the confluent lesions were coalescing lobular in type. A considerable

number of the cases showed both discrete and confluent consolidation. In peribronchial and peribronchiolar penumonia the lung was quantitatively much less involved than in the other types, and this may explain the longer average duration of the disease and the smaller percentage of fatal cases of discrete pneumonia, as compared with the confluent pneumonias. A description of the pulmonary lesions is given.

TUMORS OF THE ANTRUM.

G. B. New, Rochester, Minn. (Journal A. M. A., May 8, 1920), believes that two advances have been accomplished by the use of the cautery and radium in the treatment of malignant tumors of the antrum: first, the elimination of an operative mortality, and second, a marked decrease in the percentage of cases showing recurrences. At the Mayo Clinic for the last three years, malignant tumors of the antrum have been treated by the use of heat in the form of a soldering iron followed by radium treatment, and he believes that the immediate results are much better than when resection of the jaw was performed. The earliest symptom of malignancy of the antrum usually is pain. At first, it may be only a burning or an itching sensation over the cheek due to the irrtation of the fifth nerve. Later the pain is dull and is frequently referred to the teeth; it is usually relieved when the tumor perforates the wall of the antrum into the mouth or cheek. In some cases, the first complaint is nasal obstruction, and in others the increased nasal discharge brings the patient for an examination. A rapidly growing lymphosarcoma or round-cell sarcoma may be very extensive and still be treated by the cautery and radium, but it would be hopeless to attempt treatment for a squamous-cell epithelioma of similar size. The age of the patient and the length of the history of the condition are important factors. Involvement of the nose and sinuses or floor of the orbit makes the prognosis grave, although it does not exclude the possibility of help from treatment. Glandular involvement occurs late in malignancy of the antrum and may be in the parotid, submaxillary or cervical regions; when it is present, the possibility of helping the patient is very slight. No patients with glandular involvement were selected for treatment. The technic of the treatment is described in detail.

IMMEDIATE STERILIZATION OF WOUNDS.

As an apology for presenting a new method for the immediate disifection and closure of chronic infected wounds, W. Wayne Babcock, Philadelphia (Journal A. M. A., May 8, 1920), says that a treatment successful in the hands of highly skilled enthusiasts may fail in routine use when it exacts infiante care as to detail over prolonged periods of time, and when it is adapted only to selected cases and requires repeated operations and multiple and, at times, exceedingly painful dressing. The average surgeon is not constituted to stand on tiptoe all the time, his technic is not invariably perfect, and his soul rebels against the constant infliction of pain. It is not strange, therefore, that he has so often failed in his Carrel-Dakin treatment. The new method consists of four procedures carried out in one operation under anesthesia: I. Chemical sterilization of all sinues and wound surfaces by the injection and application of a saturated solution of zinc chlorid. 2. Delineation of infected areas by the injection or application of an alkaline ethereal solution of methylene blue. 3. Mass excision of the entire area of infection. 4. Wound closure with the obliteration of all dead spaces. As to the final percentage results, it is too early to speak positively except in regard to soft tissue wounds which, as a rule, are easily and satifsactorily handled by the method. Unless the surgeon can prevent the entrance of zinc chlorid into the general circulation during and for five minutes after the injection, and unless he is able to excise freely all chlorided tissue adjacent to the important structures, he should not employ the method.

A COMMON SALT IN MIGRAINE.

It has been found that half a teaspoonful or more of common salt, taken as soon as the premonitory symptoms of an attack of migraine begin to show themselves, will frequently cut it short in about half an hour. Similar treatment has also proved of service in epilepsy.—Medical Brief.

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May 18, 1920.

Dr. M. L. Townsend,
Editor Medical Journal,
Charlotte, N. C.

Dear Doctor:

I appreciate very highly your letter of recent date. I thank you for your kindness in offering to send me your valuable journal for the remainder of the year. I am enclosing a little article which if you think of any importance you may publish in your journal.

Wishing you great success in your work and with my kind personal regards I am,

Respectfully,
I. A. HARRIS.

To the Editor Charlotte Medical Journal:

I am 83 years old. I began the practise of medicine in the year 1861. I was assistant sergeant during the first of the Civil War. I am still studying medicine and studying patients. The more I study the more I am convinced that as physicians we should be more careful in diagnosing a case and also be careful in regard to giving too much medicine. Not every one who comes to me for treatment needs medicine. Pardon me for referring to a case that occurred in my early practice. I was called in to see a sick lady who had been an invalid for three years. She had had three very prominent physicians to treat her and had taken almost all the medicine then common to give. After a careful examination I decided she did not need medicine but a good wholesome diet, yet I knew she must think she was taking medicine. I told her I would bring the medicine I thought she needed my next visit. I went home and made some bread pills and took them to her. I told her to take one before meals and be very careful about diet while she was taking this medicine. In about three months she was practically a well woman and was able to look after her domestic duties. I give this as an instance where a proper diagnosis had not been made, also too much medicine had been used.

I. A. HARRIS.

"After That Attack of Influenza"

The constantly growing number of patients who have never completely recovered from an attack of influenza or pneumonia, emphasize the great importance of giving the utmost care and attention to the stage of convalescence. Every function needs to be supported and stimulated, and the nutrition of the whole body restored as near to the normal as possible. In

Gray's Glycerine Tonic Comp.

a great many physicians have found so efficient and dependable a means of insuring complete and satisfactory recovery in the majority of cases of influenza, that they have come to employ it as a matter of routine.

Patients who are placed on "Gray's Glycerine Tonic Comp." as soon as the temperature subsides, rapidly regain their strength and vitality. The influence of "Gray's Tonic" as a post-influenzal tonic and reconstructive is shown not only by the prompt and gratifying effect on the whole body that follows its use, but also by the notable freedom it assures from complications and sequelae.

THE PURDUE FREDERICK CO.
135 Christopher St., New York

DROPSY

When you require a drug that will safely and promptly remove fluid accumulation in the most natural way and prevent re-accumulation. When you need a stimulant that will NOT whip up a tried, feeble heart without reducing its load and is free from digitalis dangers and inconveniences, prescribe

ANEDEMIN TABLETS
(opposed to edema)

which combine Squill active principles, Strophanthus, Apocynum and Sambucus and are non-toxic, not cumulative nor an irritant. They have stood the test of years and grow more popular with the profession each succeeding year.

Samples to physicians.

With all Wholesale and Retail Druggists

Anedemin Chemical Co.
Chattanooga, Tennessee

A REMINDER

The results secured from the use of a capable culture of Bacillus Bulgaricus in infant enterocolitis have proven so markedly successful that many physicians employ this treatment in preference to all others.

B. B. CULTURE combines the advantages of an effective form, a convenient size and a moderate price—and it will show *results*.

B. B. CULTURE
LABORATORY, Inc.
YONKERS, N. Y.

CHIROPRACTIC—LUX ON SUBLUXATIONS.

Members of the medical profession have long been at a loss to know just what "chiropractic" is. They know what "chiropractors" are, but "chiropractic"—that has been a mystery! It remained for the Senate and General Assembly of the State of New Jersey to elucidate. An Act to Regulate the Practice of Chiropractic recently signed by the Governor of New Jersey gives to a palpitating medical world this vital information. Here is the opening paragraph of the act:

Definition of Chiropractic: The term chiropractic when used in this act shall be construed to mean and be the name given to the study and application of a universal philosophy of biology, theology, thesophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationships between all attributes necessary to normal composite forms, to harmonious quantities and qualities by placing in juxtaposition the abnormal concrete positions of definite mechanical portions with each other by hand, thus correcting all subluxations of the articulations of the spinal column, for the purpose of permitting the recreation of all normal cyclic currents through nerves that were formerly not permitted to be transmitted, through impingement, but have now assumed their normal size and capacity for conduction as they emanate through intervertebral foramina—the expressions of which were formerly excessive or partially lacking—named disease.

Lucidity itself! The New Jersey legislature said, "Let there be light on Chiropractic"—and, behold, it became the "art of permitting the restoration of the triune relationships between all attributes necessary to normal composite forms, to harmonious quantities and qualities . . . " Simplicity to the nth power. Bring on your Einstein theory —the New Jersey solons may oblige with a snappy definition.—Jour. A. M. A., May 15, 1920.

ENFORCED TEMPERANCE IN EUROPE.

The advocates of prohibition are already beginning to marshal statistics as to the result of the abolition of the liquor traffic on the welfare of the nation. It will not be easy to establish the relation of cause and effect in the various phenomena of change in which benefit or disadvantage may be claimed. The altered social and economic conditions following the war have brought about new conditions of living and standards of conduct the precise effect of which on the people of the United States remains to be clearly ascertained. However, in the matter of restriction of the consumption of alcohol, if not its entire prohibition, this country has not stood entirely alone in recent years. During the war our allies and the enemy country restricted the manufacture of alcoholic beverages; and the neutrals surrounding the Ceneral Empires did likewise. A curtailment has, moreover, followed not only through legal restrictions on sales which confined public drinking to certain hours and places, but also as the direct result of scarcity and high prices which made purchases difficult. This has been particularly true of the strongly alcoholic beverages, like brandy. The benefits of temperance to the thousands of men in the armies can scarcely be debated. An elaborate investigation made by a commission of scientists and clinicians for the German government and published in 1919 affords interesting conclusions for the civilian population of a country accustomed to liberal indulgence in alcoholic drinks. It appears, particularly from the report of Professor Partsch, that in Prussia as a result of restricted drinking, there was an extraordinary decrease of chronic alcoholism and the mental disorders attendant on it. Related bodily illnesses were also diminished. The decrease in psychic maladies was widespread, not being confined to any portion of the empire. The report finds special occasion to note the restoration of former chronic drunkards in many cases to an economically useful career. Contrary to what is alleged by some of the defenders of alcohol in this country—on what basis we do not know—the habitual use of morphin or cocain is not interpreted by the Prussian medical commission as the outcome of restriction on the availability of alcohol. It insists that the desire for strong alcoholic stimulants among the population has by no means become suppressed. Only the excessive cost and the restricted

QUOTATIONS FROM DOCTORS: No. 3

"While on the subject of 'Depletion' perhaps a report of the following case may be of interest: Male, 66 years of age—diabetic—; retired at night in usual health—woke in morning with pain in region of elbow, arm enormously swollen, veins like whip-cords, edema—pitting on pressure. Diagnosis: probably thrombosis of basilic vein."

"I advised complete rest of arm and applied

Antiphlogistine
TRADE MARK

liberally, covering with cotton as usual." ____ "Patient reported next day that bandage and cotton, also bed clothing, were literally soaked with fluid, swelling greatly subsided. After five days of above treatment, swelling all gone, circulation normal—thrombus disintegrated."

S. E. G., M. D.
N. Y. CITY, N. Y.

THE DENVER CHEMICAL M'F'G. COMPANY
NEW YORK

supplies are believed to stand in the way of a return to former habits, now that peacetime conditions are being restored abroad. If temperance enforced by the exigencies of a war has in truth exercised a highly beneficent influence on the nations, the problem of retaining its essential benefits is surely one worthy of consideration in any propaganda for the public health.—Jour. A. M. A., May 15, 1920.

INDIA, THE DRUG MARKET OF THE WORLD.

A pain can make the whole world kin, for human nature will not endure discomfort for any length of time. An aching back can hurt as much in India as in North Dakota, U. S. A., and the rush for remedial lotions may be the opportunity for an alert druggist to introduce a new cure.

Druggists in India will tell you that there is nothing as certain to relieve as "oil o' ghee." The mysterious properties of that lotion are loudly extolled by the owner of this native drug shop. He will tell you that the medicinal properties of "oil o' ghee" are due to the age of the lotion; if it be twenty years old he will recommend it for any member of an Indian family. This "oil o' ghee" is nothing more than melted butter, and since it originally came from the cow, it is held sacred in India; "oil o' ghee" possesses untold virtue as either ointment or lotion in every Indian drug cabinet.

This is not the only oil of value, for Indians depend almost wholly upon native herbs for their oils and drugs. There is a list of oils with curious Indian names which are valuable in India for household purposes and in manufacture as well. The Malabar Cardamon oil is used for medicinal purposes, and the costus Root is used for an oil that has the fragrant odor of orris root and will protect the clothes from attacks of insects. The formidable name of Blumea Balsamifera is the term of a grass which gives the camphor used extensively in China. It is used by native Indians as a protection against flies and insects. The oils which are used for soap perfumery come from the grasses native to India and are known as sandalwood oil, palmarosa oil, lemongrass oil.

It is an enlightening fact that one-half the drugs in the British Pharmacopoeia are native to India and practically all the rest could be cultivated there. This matter has received the attention of the representatives of the Interchurch World Movement, who are interested in making a world survey of sociological conditions, and they believe that the quality of these drugs is good. A systematic cultivation of the drugs native to this country and the introduction of the rest would insure a regular supply of good drugs of standard quality. Belladonna, digitalis, and henbane grow excellently here, ipecacuanha is raised in hilly parts of India, while Jap root grows as easily as potatoes in Ireland. Saffron, licorice and salep could be cultivated in this country. There is every reason to believe that India could be developed as the drug market of the world.

JUNIOR PHYSIOLOGIST.

July 6, 1920.

The United States Civil Service Commission announces an open competitive examination for junior physiologist. A vacancy at Edgewood Arsenal, Edgewood, Md., $2,000 a year and quarters for single employee, and vacancies in positions requiring similar qualifications, at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Appointees whose services are satisfactory may be allowed the temporary increase granted by Congress of $20 a month. There is only a possibility of this temporary increase being allowed the appointee at Edgewood Arsenal.

In filling vacancies in positions with headquarters outside of Washington, D. C., certification will be made of the highest eligibles residing nearest the vicinity of the place at which the appointee is to be employed, except that upon the request of the department certification will be made of the highest eligibles on the register for the entire country who have expressed willingness to accept appointment where the vacancy exists.

All citizens of the United States who meet the requirements, both men and women, may enter this examination; appointing officers, however, have the legal right to specify the sex desired in requesting certification of eligibles. For the present vacancy male eligibles are desired.

Pond's Extract—Tender Feet

For relieving smarting and burning of tender feet there is nothing that will prove more soothing and cooling than a liberal application of Pond's Extract. Its thorough use every hour or two will relieve congestion and soreness and restore the skin of the feet to a normal condition.

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Vapo-Cresolene

For Forty Years

Vaporized Cresolene

has held its position as a valuable remedy for certain bronchial diseases of childhood.

It is particularly useful in the treatment of the very young.

Cresolene is indicated in Whooping Cough, Spasmodic Croup, Bronchitis, Asthma, Broncho-pneumonia, Coughs and the bronchial complications incident to Scarlet Fever and Measles.

Vaporized Cresolene is destructive to Diphtheria bacilli and may be advantageously used in connection with the treatment of this disease.

Let us send you our descriptive and test booklet which gives liberal sample offer.

THE VAPO-CRESOLENE CO., 62 Cortlandt Street, NEW YORK
Leming-Miles Building, Montreal, Canada

SANMETTO FOR KIDNEY-BLADDER-PROSTATE.

Valuable in Prostatitis-Pyelitis-Cystitis-Enuresis

In Dysuria-Albuminuria

In Irritable and Weak Bladder Conditions

AS A SOOTHER AND MILD DIURETIC

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

WANTED—An experienced trained nurse to act in the capacity of head nurse and matron in Glenwood Park Sanitarium. W. C. Ashworth, President, Greensboro, N. C.

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THE STANDARD SALINE LAXATIVE

Samples on request

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New York

The duties of the appointee will be to assist in extensive research work on toxic compounds.

Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated, on a scale of 100: (1) Physical ability, 10; (2) Training and experience, 90.

Competitors will be rated upon the sworn statements in their applications and upon corroborative evidence.

Applicants must have completed a four years' high-school course or have equivalent education. In addition, they must have completed two years of a course in a medical school of recognized standing, qualifying in physiology, pharmacology, and pathology, with laboratory work, or have had at least one year's experience in laboratory work and experimental pharmacology and toxicology.

Applicants must have reached their twenty-first birthday on the date of examination.

Applicants must submit with their applications their unmounted photographs, taken within two years, with their names written thereon. Proofs or group photographs will not be accepted. Photographs will not be returned to applicants.

Applicants will be admitted to this examination regardless of their residence and domicile; but only those who have been actually domiciled in the State or Territory in which they reside for at least one year previous to the examination, and who have the county officer's certificate in the application form executed, may become eligible for permanent appointment to the apportioned service in Washington, D. C.

Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass., New York, N. Y., New Orleans, La., Honolulu, Hawaii; Postoffice, Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Calif.; Old Customhouse, St. Louis, Mo.; Administration Building, Balboa Heights, Canal Zone; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

Applications should be properly executed, excluding the medical certificate, and must be filed with the Civil Service Commission, Washington, D. C., prior to the hour of closing business on July 6, 1920.

An act of Congress approved July 11, 1919, provides:

"That hereafter in making appointments to clerical and other positions in the Executive branch of the Government in the District of Columbia or elsewhere preference shall be given to honorably discharged soldiers, sailors, and marines, and widows of such, and to the wives of injured soldiers, sailors, and marines who themselves are not qualified but whose wives are qualified to hold such positions."

Applicants entitled to preference should attach to their applications their original discharge, or a photostat or certified copy thereof, or their official record of service, which will be returned after inspection by the Commission.

TUBERCULOUS RHEUMATISM

L. Davernay has, in the April 10 issue of the Lyon Medical Journal, an article which states that while the existence of tuberculous rheumatism is quite generally recognized, there are many erroneous ideas afloat in regard to the nature of the disease and with respect to its treatment. Many seem to think of tuberculous rheumatism as an articular localization of the Koch bacillus, which Duvernay says is not only still unproved but seems to be in contradiction with almost all the facts. It should therefore be emphasized that tuberculous rheumatism (or inflammatory tuberculosis) presents just ordinary lesions, and that there are no evidences of classic tuberculosis. He regards tuberculous rheumatism as not so much a toxic rheumatism as an antitoxic or reactional rheumatism. It seldom appears when the toxic substances are abundant. The tuberculous rheumatic is one who has recovered from tuberculosis, whose organism is defending itself, and in whom the antibodies are very active and very abundant. Since tuberculous rheumatism is not a local tuberculosis but a rheumatism, it should be treated like other forms of rheumatism: warmth, immobilization during the acute stages but mobilization and massage as early as possible to avoid atrophy and ankylosis.

SPECIFIC INFECTIONS

Elixir Iodo-Bromide of Calcium Compound

With or Without Mercury Bichloride

THE TILDEN COMPANY

Manufacturing Pharmacists and Chemists

NEW LEBANON, N. Y. Since 1848 ST. LOUIS, MO.

Trade Mark Registered.

Gluten Flour

40% GLUTEN

Guaranteed to comply in all respects to standard requirements of U. S. Dept. of Agriculture.

Manufactured by

FARWELL & RHINES

Watertown, N. Y.

CAUTION

Sander & Sons' Eucalyptol

(Eucalypti Extract)

We received recently the following communication from Dr. W. H. Mayfield, Louisville, Ky.: "I have been using Eucalyptus, depending upon our drug stores which have been furnishing me the commercial article which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: "That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)." In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source or the results the physician expects from any other manufacture.

"The application of Eucalyptol proper is so positive and distinct in its results that no doubt must be entertained as to the ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insists upon receiving it."**

—Sander & Sons, Bendigo, Australia.

MECKEL'S DIVERTICULUM.

Daniel A. Borden, Washington, D. C. (Journal A. M. A., May 8, 1920), reports a case in which there was an unusual pathologic lesion of Meckel's diverticulum. The diverticulum had tied itself into a complete knot, including a coil of the intestine about 2 feet in lenth. In order to untie this knot the diverticulum had to be cut near its base and its path retraced by means of a hemostat.

WANTED: Physician to take over general practice and do X-Ray work in my hospital. Excellent opportunity for right party. References exchanged.

Robert T. Ferguson, M. D.

Gaffney, S. C.

UNPROVEN ARSENIC PREPARATIONS IN TREATMENT OF SYPHILIS.

Treasury Department
Bureau of
The Public Health Service
Washington
June 5, 1920.

To the Editor,
Charlotte Medical Journal,
Charlotte, N. C.

Sir:

On account of the large number of arsenic preparations which are being exploited for the treatment of syphilis, the United States Public Health Service has considered it desirable to issue a circular letter, copy of which is inclosed, discouraging the indiscriminate use of untried preparations.

Attention is especially invited to the fact that provision is made for the experimental use of any preparation under conditions which will make the results of such experiment available to others than the physician immediately concerned.

I shall be glad to have you give the circular letter and this letter of transmission publicity.

Very truly yours,
H. S. CUMMING,
Surgeon General.

USE OF ARSENIC PREPARATIONS IN TREATMENT OF SYPHILIS.

Treasury Department
Bureau of
The Public Health Service
Washington
May 12, 1920.

Bureau Circular
Letter No. 219.

Medical Officers, U. S. Public Health Service and others concerned:

Your attention is invited to the extensive exploitation through advertisements in professional journals and otherwise of various arsenic preparations which are not related to the arsphenamine group. The preparations referred to are sold with claims in regard to their value in the treatment of syphilis, which are unwarranted.

In the opinion of this office, it is in the interest of all concerned that the subcutaneous, intramuscular or intravenous use of arsenic in the treatment of syphilis be confined to preparations of the arsphenamine group as these agents are of established value and are produced under the regulations of the Public Health Service. The following firms are now licensed for the manufacture of arsephenamine and neoarsphenamine:

Dermatological Research Leboratories, 1720 Lombard Street, Philadelphia, Pa.
H .A. Metz Laboratories, 122 Hudson Street, New York, N. Y.
Diarsenol Co., Inc., Buffalo, N. Y.
Takamine Laboratories, Clifton, N. J.

The Lowy Laboratory, of Newark, N. J., has been granted a license to prepare a stable solution of arsphenamine.

It is not the desire of the Bureau to limit clinicians in the choice of agents of recognized worth, but in the case of arsenic preparations, not members of the arsphenamine group, the available evidence indicates that their routine use is inadvisable in the treatment of syphilis. If it is desired to use any of these preparations in a purely experimental way previous authority from the bureau should be secured. Applications for this authority should be accompanied by a statement as to the composition of the drug including the structural formula and the reason for its use. All information available on the value of the preparation should be forwarded.

H. S. CUMMING,
Surgeon General.

Tuberculosis Enterocolitis.

The pathology of tuberculosis of the intestine is divided by R. D. Carman, Rochester, Minn. (Journal A. M. A., May 15, 1920), into three types: (1) nodular; (2) ulcerative, and (3) fibrous. He points out that a lesion roentgenologically demonstrated in the ileocecal coil, with irregularity of bowel contour and without the physiologic barium shadow in the cecocolon, although it may represent any ulcerative process, is probably tuberculosis if pulmonary tuberculosis is present. The tuberculosis lesions may be nodular, ulcerative or fibrous. They are usually associated to a greater or less extent, dependent on the stage of the disease. The nodular

continued on page 17 of June Supplement.

Miscellaneous

Special Features of the Venereal Disease Campaign.

In any campaign for community action it is important to reach special groups who hold strategic positions in their respective communities. This point was appreciated by the United States Public Health Service in the organized effort against venereal disease, and several groups have been reached during the past year. The campaign among physicians was wisely planned and well executed. According to a publication recently issued the result has been favorable responses from 60,666 physicians, or nearly 50 per cent of the medical profession in the United States. The number of physicians promising co-operation in North Carolina was 724.

A similar campaign among druggists brought pledges from 28,226, or nearly 60 per cent of the druggists in the country. The number of such responses from North Carolina druggists was 258.

The appeals to special groups included a campaign for enlarged teaching facilities to provide better instruction concerning venereal diseases in medical, dental and pharmaceutical schools, in hospitals, clinics and training schools for nurses. Because of the fact that nurses come into such intimate contact with the people in their work, the effort to provide instruction for nurses has included the organization of special courses in public health nursing in relation to venereal diseases and the publication of a volume of "Lectures to Nurses" that has been widely distributed among nurses throughout the country.

The Public Health Service has also launched a circular letter campaign among the 17,000 medical, dental, pharmaceutical and allied journals in the country for the purpose of enlisting their co-operation in giving publicity to the program presented to the medical and allied colleges. The Journal is in hearty accord with the movement to provide facilities for more extended instructions concerning venereal diseases in these special schools.

In an effort to eliminate the advertising of quack doctors, medical institutes and nostrums to venereal disease victims, the Public Health Service inaugurated a campaign among advertising media by sending a letter to the business managers of 20,000 newspapers and periodicals in the United States which carry advertising. In response to this appeal approximately 99 per cent of these 20,000 managers signed pledge cards not to carry such advertising in the future. A later latter brought 60 additional replies, so that there are still only 140 who have not agreed to discontinue such advertising.

The latest special campaign to be launched by the Public Health Service is the one with dentists, in which an effort has been made to secure the cooperation of the 45,000 dentists in the country. It is too early yet for the result of this campaign to be known, but a hearty response is expected.

In accord with its general policy of decentralization the Public Health Service has asked the various State Boards of Health to continue the campaign among these special groups. From a state point of view it will probably be found advisable to continue the campaign along somewhat different lines, but the people of North Carolina may be assured that no effective means of combatting the scourge of venereal disease will be overlooked by the North Carolina State Board of Health.

Recent legislation requires druggists to report their sales of venereal disease remedies to the State Board of Health. Information comes from various quarters to the effect that the sale of such remedies is on the decrease. People are becoming too much enlightened to attempt treating themselves for venereal diseases.

A recent law also requires physicians to report their cases of venereal diseases to the health officials. It is sought by this means to place in the hands of the health authorities information concerning possible sources of infection so that official action may be taken to prevent the spread of such diseases. The physicians of North Carolina are responding to this demand as they have always responded to demands for public service and are lending their co-operation to the health authorities for the control of venereal diseases.

The State Board of Health is now con-

ducting a special campaign among physicians for the purpose o femphasizing the importance of proper medical care in cases of venereal disease. In their efforts to control these diseases health authorities are in a large measure dependant upon physicians. It is urged that all physicians take advantage of the opportunity now afforded them to perform a distinct public service in doing everything possible to advance the venereal disease campaign.

In the spring the eliminative functions do not present their usual activity owing to the torpor and locked-up secretions which have existed during the winter months and if this condition remains neglected, the probable result will be a pronounced attack of rheumatism, neuralgia or grippe in one or another of its forms. The necessity of a powerful eliminant is self-evident and a complete cure cannot be expected until the poisons are thoroughly expelled from the system and the diseased organs enabled to resume normal functions.

Tongaline, by promoting the absorptive powers of the various glands which have been clogged and by its stimulating action on the liver, the bowels, the kidneys and the skin, will relieve the pain, allay the fever, eliminate the poisons, stimulate recuperation and prevent sequelae.

In malarial conditions a diuretic is not indicated as often as the symptoms suggest, as one always has to contend with a torpid liver, that is throwing a part of its work on the kidneys, meaning double duty for the latter.

In such cases the rational treatment is to use some agent which will stimulate all the excretionary organs, dividing the duty of each and causing thorough elimination.

Tongaline either, alone or in combination with other agents, as indicated, will invariably expel the malarial and other poisons promptly and thoroughly.

Nose and throat specialists who are using Hemagulen, a product of the Lilly Laboratories, are reporting that in using this as a local hemostatic following the removal of tonsils of children, less soreness seems to follow and healing is unusually rapid. This is accounted for by some who say that the active thromboplastic substance of Hemagulen is not astringent to the tissues, aiding merely in producing and accelerating a normal clot by its local application. Hemagulen is prepared from fresh brain substance, is sterile and is a dated product—therefore should be kept in the ice box. Literature will be supplied on Hemagulen upon request made to Eli Lilly & Company, Indianapolis.

LINGERING COUGHS.

About this time of the year patients make demand upon physicians for relief from chronic coughs that have persisted throughout the spring months, and are the remaining symptom of a severe bronchitis or attack of influenza of the winter.

The logical plan of treatment is to make an effort to raise the general resistance and at the same time offer to the irritated bronchial mucosa an agent that will have a soothing effect. For this double purpose Cord. Ext. Ol. Morrhuae Comp. (Hagee) will prove of marked usefulness, owing to its power to increase bodily strength and its specific action upon bronchial tissues. The regular administration of Cord. Ext. Ol. Morrhuae Comp. (Hagee) is of the utmost service in these chronic coughs, and with many physicians it is a routine measure. Its reconstructive properties make it decidedly valuable in run-down states, an underlying condition in most cases of chronic bronchitis.

The method of vaccination recommended as a standard by the New York State Department of Health is as follows:

1. Cleanse the skin over the insertion of the left deltoid muscle with alcohol.

2. Place a small drop of virus on the skin.

3. Take a sterile needle and make a single scratch one-fourth inch long upon the skin through the vaccine.

4. Allow the vaccine to dry.

5. Do not place a shield or dressing of any kind over the spot. The dried serum that exudes is the best kind of dressing.

Quotations from Doctors: No. 1

"To mention the hygroscopic action of glycerine to any one who has the slightest knowledge of chemistry, is unnecessary. But, to be able 'to harness' this action and utilize it as a therapeutic agent of great potency, is worthy of note.

In

we have such a combination; and it has stood the test of many years. It has shown that, in proper mixture with a suitable base, the acknowledged osmetic power of glycerine may be greatly intensified; that through this action congestion in all tissues may be reduced, thus relieving pain from distension . . . . and acting as a stimulant to normal circulation, and hastening resolution."

THE DENVER CHEMICAL M'F'G. COMPANY

NEW YORK

N. C. COUNTY SOCIETIES.

Hoke County Medical Society.

At a meeting of the Hoke County Medical Society the following officers were elected: President, Dr. R. A. McBrayer; Vice-President, Dr. W. E. Wilkins; Secretary-Treasurer, Dr. L. B. McBrayer. Dr. George W. Brown is delegate to the North Carolina Medical society meeting, with Dr. L. B. McBrayer as alternate.

Northampton County Medical Society.

The following officers were elected at a meeting of the Northampton County Medical Society: President, Dr. M. Bolton, Rich Square. N. C.; Secretary-Treasurer, Dr. L. E. McDaniel, Lasker, N. C.

Currituck County Medical Society.

At a meeting of the Currituck County Medical Society the following offivers were elected: President, Dr. J. M. Newbern, Jarvisburg, N. C.; Secretary-Treasurer, Dr. S. M. Mann, Moyock, N. C. Delegates to the State Medical Society meeting are: Dr. W. H. Cowell, Shawboro, N. C., and Dr. W. T. Griggs, Poplar Branch, N. C.

Rockingham County Medical Society.

At a meeting of the Rockingham County Medical Society the following officers were elected: President, Dr. J. W. McGehee, Reidsville, N. C.; Vice-President, Dr. J. V. Wray, Spray, N. C.; Secretary-Treasurer, Dr. J. T. Taylor, Madison, N. C. Delegates to the state meeting: Dr. M. P. Cummings, Reidsville, N. C., and Dr. W. P. Wilson, Madison, N. C.

Pamlico County Medical Society.

At a meeting of the Pamlico County Medical Society the following officers were elected: President, Dr. D. A. Dees, Bayboro, N. C.; Vice-President, Dr. S. E. McCottor, Bayboro, N. C., and Secretary-Treasurer, Dr. J. J. Purdy, Oriental, N. C.

Cleveland County Medical Society.

The following officers were elected at a recent meeting of the Cleveland County Medical Society: President, Dr. B. H. Palmer, Shelby, N. C.; Secretary-Sreasurer, Dr. E. B. Latimore, Shelby, N. C. Delegate to the state meeting: Dr. E. B. Lattimore, with Dr. E. A. Houser as alternate.

Cabarrus County Medical Society.

At a meeting of the Cabarrus County Medical Society the following officers were elected: President, Dr. G. T. Gouger, Concord, N. C.: Vice-President, Dr. S. E. Buchanan, Concord, N. C.; Secretary-Treasurer, Dr. J. F. Reed, Concord, N. C. Delegate to the state meeting: Dr. Frank Flowe, Kannapolis, N. C.; alternate, Dr. J. A. Patterson, Concord, N. C.; Censor, Dr. J. E. Smoot, Concord, N. C.

Lincoln County Medical Society.

Officers for Lincoln County Medical Society are as follows: President, Dr. H. N. Abernathy, Denver. N. C.; VicerPesident, Dr. L. A. Crowell, Lincolnton, N. C.; Secretary-Treasurer, Dr. W. F. Elliott, Lincolnton, N. C.; Delegate to state meeting, Dr. J. S. Wise, Lincolnton, N. C.; alternate, Dr. R. E. Lee, Lincolnton, N. C.

Wake County Medical Society.

At a meeting of the Wake County Medical Society on, December 17th, the following officers were elected for 1920: President C. N. Shore, Raleigh, N. C.; Vive-President, Dr. J. M. Harper, Zebulon, N. C.; Secretary-Treasurer, Dr. W. C. Horton, Raleigh, N. C.; Censors, Dr. L. N. West, 3 years, Raleigh, N. C.; Dr. J. M. Templeton, 2 years, Cary, N. C.; Dr. J. R. Lowery, 1 year, Raleigh, N. C. Delegates: Dr. T. M. Jordan, Raleigh, N. C.; Dr. A. C. Campbell, Raleigh, N. C.; Dr. J. B. Wright, Raleigh, N. C. Alternates, Dr. C. O. Abernathy, Raleigh, N. C.; Dr. K. P. Battle, Raleigh, N. C.; Dr. R. E. Yarborough, Raleigh, N. C.

Granville County Medical Society.

At a meeting of the Granville County Medical Society the following officers were elected for the year 1920: President, Dr. Joseph A. Morris, Oxford, N. C.; Vice-President, Dr. S. H. Cannady, Oxford. N. C.; Secretary-Treasurer, Dr. W. B. Bullock, Oxford, N. C. Delegates to the State Medical Society meeting: Dr. T. L. Booth, Oxford, N. C. Alternate, Dr. G. T. Sykes, Grissom, N. C.

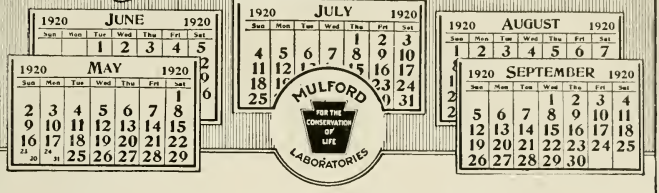
Scotland County Medical Society.

The following officers were elected at a recent meeting of the Scotland County Medical Society: President, Dr. Peter John, Laurinburg, N. C.; Secretary-Treasurer, Dr. James G. Pate, Gibson, N. C.; Delegate, Dr. W. G. Shaw, Wagram, N. C.

Mecklenburg County Medical Society.

At a meeting of the Mecklenburg

Hay Fever Time



For Spring Sufferers

Affected by the pollens of spring grasses, and subject to so-called "Rose Cold" or Spring Hay Fever, treatment is usually begun early—in April or May—at least four to six weeks before the expected attack.

Sheppegrell reports an analysis of 707 cases treated with pollen extract, of which 89% showed satisfactory results, 4% showed little or no improvement, and 7% discontinued treatment before the result could be noted. In no case was there an aggravation of symptoms. (Public Health Reports, Vol. 34, No. 31, 1919).

Mulford Hay Fever Pollen Extract
(Spring)

Contains proteins of the pollens of timothy, rye, orchard grass, sweet vernal grass and red top grass, accurately standardized in physiological salt solution.

It is furnished in convenient syringe and vial containers.

Immunize Early Against Hay Fever

H. K. MULFORD COMPANY, Philadelphia, U. S. A.

44244-m

Mulford

THE PIONEER BIOLOGICAL LABORATORIES

County Medical Society the following officers were elected for the year 1920: President, Dr. C. M. Strong; Vice-President, Dr. F. D. Austin; Secretary, Dr. J. L. Ransom; Treasurer, Dr. W. H. Parsons. Delegates to the state meeting: Dr. J. E. S. Davidson, Dr. L. W. Hovis, Dr. R. Z. Linney and Dr. B. J. Witherspoon. Alternates: Dr. J. McC. DeArmon, Dr. H. P. Barrett, Dr. eRid Patterson and Dr. Robert W. Petrie. The society has a membership og 98.

HOW TO GET THE MAXIMUM EFFECT OF CASCARA.

Success in the treatment of chronic constipation with cascara sagrada depends upon two things:

First, the choice of a reliable preparation of the drug.

Second, its administration by a method that engages the patient's interest and co-operation.

The bitter fluid extract is frequently selected for its peculiar tonic effect upon the musculature of the colon. In that event the patient is instructed to drop the prescribed dose into an empty gelatin capsule, which is then closed and taken like a tablet or pill. The initial dose may be ten drops at bedtime, or, in more intracable cases, three times daily. The idea to be kept in mind is to push the dose until a natural daily evacuation is established, then to maintain it for a time until the tonic effect of the drug is manifest. At this point, and not until then, the dose may be decreased gradually to the vanishing point.

Parke, Davis & Company's bitter fluid extract of cascara sagrada is recognized as standard everywhere. It was the original preparation, first offered to the medical profession nearly half a ecntury ago.

PREPARE THE BABIES FOR HOT WEATHER.

During the month of June it is not a bad plan for the physician to take mental "stock" of the babies under his care, especially such as are bottle-fed, with the general idea of recommending such treatment as will tone up and vitalize those whose nutrition may be below par, so that they may enter the trying summer months in the best possible condition to ward off or withstand the depressing influences of extreme heat or the prostrating effects of the diarrheal disorders o fthe heated term.

Careful attention to feeding is, of course, a sine qua non and the details of the infant's nourishment should be carefully investigated and regulated. But this is not all. Many bottle-fed babies are below standard from a hematologic standpoint. The marasmic anemic baby deserves special attention in the way of building up and restoring a circulating fluid which is deficient in red cells and hemoglobin. In the entire Materia Medica there can be found no direct hematic quite as suitable for infants and young children at Pepto-Mangan (Gude). In addition to its distinctly pleasant taste, this hemic tonic is entirely devoid of irritant properties and never disturbs the digestion of the most feeble infant. Being free from astringent action, it does not induce constipation. A few weeks 'treatment with appropriate doses of Pepto-Mangan very frequently establishes sufficient resisting power to enable the baby to pass through the hot summer without serious trouble, gastro-intestinal or otherwise.

HAY FEVER.

Satisfactory results in 89 per cent of the cases is certainly a very encouraging showing, and that is what Dr. William Scheppegress* reports in an analysis of 707 cases of hay fever treated with pollen extract. The remaining 11 per cent consisted of 4 per cent, showing little or no improvement and 7 per cent discontinuing treatment before the result could be noted. An important feature of the report is that in no case was there an aggravation of symptoms.

A diagnostic test is advised in all cases, particularly where there is any doubt as to the cause of the attack, to determine the class of pollen responsible and the degree of susceptibility of the patient. Susceptible persons should be treated at least four to six weeks before the usual time of attack. Moderate doses are recommended, at fairly frequent intervals of three to four days, but during an attack the dosage should be reduced. Large doses should be avoided, as they may produce severe reactions and other complications.

Experience has shown that the best results in a large number of individuals are obtained by combined treatment with pollen extract and bacterins. This

Pond's Extract

There is nothing superior to sponge bathing for lowering the temperature in febrile disorders, and Pond's Extract and tepid water, equal parts, make a solution for the purpose that is most agreeable and effective. It is cooling and refreshing, and through its action on the skin not only lowers the body temperature and makes the patient more comfortable, but is free from the depressing effects of other antipyretic measures.

POND'S EXTRACT CO.
New York and London

Fever Bathing

Vapo-Cresolene

For Forty Years
Vaporized Cresolene
has held its position as a valuable remedy for certain bronchial diseases of childhood.

It is particularly useful in the treatment of the very young.

Cresolene is indicated in Whooping Cough, Spasmodic Croup, Bronchitis, Asthma, Broncho-pneumonia, Coughs and the bronchial complications incident to Scarlet Fever and Measles.

Vaporized Cresolene is destructive to Diphtheria bacilli and may be advantageously used in connection with the treatment of this disease.

Let us send you our descriptive and test booklet which gives liberal sample offer.

THE VAPO-CRESOLENE CO., 62 Cortlandt Street, NEW YORK
Leeming-Miles Building, Montreal, Canada

WANTED

Intelligent Ambitious Young Women to enter the Nursing Profession.

The Greenville City Hospital offers a course of training to young women fitting them for the field of general nursing and meeting the requirements of the Army and Navy Nursing Corps, and the Red Cross.

Pupils will be lodged in the delightful new nurses' home—have an eight-hour working day, daily classes and lectures.

Apply for further information to

Superintendent City Hospital,
Greenville, S. C.

The Charlotte Sanatorium, Charlotte, N. C., wants, in the very near future, six or eight pupil nurses. If any of the subscribers of this journal who know of young ladies who would be suitable for a position of this kind, if they will correspond with the Charlotte Sanatorium, Charlotte, N. C., they can get a position.

WANTED—An experienced trained nurse to act in the capacity of head nurse and matron in Glenwood Park Sanitarium. W. C. Ashworth, President, Greensboro, N. C.

KALMERID CATGUT
A Physiologically Correct Germicidal Suture
DAVIS & GECK, INC.
217-229 Duffield Street
Brooklyn, N.Y., U.S.A.

Sal Hepatica
THE STANDARD SALINE LAXATIVE
Samples on request
Bristol-Myers Co.
New York

"I think she loves me," said the young doctor.

"I see she lets you hold her hand."

"Yes, and when I do, her pulse seems considerably accelerated."

is especially true with asthmatic individuals. The latter condition may be considered as a secondary infection, resulting from the pollen irritation. The bacterin used should include such organisms as are commonly found present in infections of the broncho-respiratory tract. The pollen extract and the bacterin may be administered simultaneously, in small doses, so as not to produce severe reactions, and at two to three day intervals.

It is important to remember that early treatment is important and that preventive treatment, before the attack, is usually more effective than curative treatment, begun after hay fever symptoms have developed.

The Mulford Pollen Extracts advertised on another page of this issue, are prepared from carefully selected pollens and are accurately standardized as to the protein content in each dose.

Mulford Influenza Serobacterin Mixed is admirably adapted for use in the combined treatment above referred to, since it contains the organisms generally found present in the respiratory tract.

In these products, therefore, physicians have available reliably prepared materials to enable them to relieve the unfortunate hay fever victims to the best extent of the present knowledge on the subject.

*(Public Health Reports, Vol. 34, 1919, page 1673.)

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

THE TONSIL AND INFECTION.

Certain studies of the tonsil in relation to infectious processes are the subject of a paper by D. J. Davis (Journal A. M. A., Jan. 31, 1920). An interesting point to start with is the distribution of lymphoid tissue which is specially accumulated in the palatine tonsils and in the ileocecal region. These accumulations seem to be a protective mechanism against pathogenic organisms, more against some than others, and it may break down entirely in some cases. Another point noticed as of importance is the surface area of the tonsils, which Davis has attempted to measure, and finds it roughly averages about 25 square cm. Another feature of significance is the distribution of plasma cells, which, generally speaking, indicate chronic inflammation or irritation, and therefore must be regarded as pathological. Their time of appearance, distribution, tendencies, etc., were studied by Davis. He disputes the statement that the bacterial flora is abundant and varied, as he finds that not every germ that enters the tonsils will develop there. He sums up his conclusions from the study as follows: "In order to understand clearly the genesis of certain diseases, it is necessary to study intensively a suspected focus of infection, like the tonsil, in both normal and infected persons. Lymphoid structures attain two mixima of distribution: one in the throat and another in the region of the ileocecal valve and appendix; these maxima correspond in general to the normal distribution of bacteria in the ailmentary canal. At these points also the greatest number of pathogenic micro-organisms attack the body. Plasma cells appear shortly after birth (therefore after infection) under the mucosa, and their presence probably indicates chronic absorption of infectious and other material. Cetain organisms injected into the crypts of the tonsils disappear in a few days. The flora normally found in the tonsils is a resericted one. Actinomyces-like granules composed of fusiform bacilli, streptococci and spirochetes growing together appear as more or less normal inhabitants of the crypts. Here may be an important source of B. fusiformis in certain infections about the mouth caused by this organism. In the tonsil crypts, streptoccus hemolyticus is almost constantly found. This focus is one source of these organisms in the throat and adjacent structures. This fact must be considered in making throat cultures and in a study of the problem of hemolytic streptococcus carriers."

SHE INTUITIVELY KNEW.

"What are you doing in the kitchen, Thomas?" asked the inquisitive wife.

"I am opening a can of tomatoes, if you particularly wish to know," he impatiently rejoined.

"And what are you opening it with?"

"Why, with the can opener. Did you think I was using my teeth?" he added, savagely.

"Oh, no, dear," she sweetly replied; "but I do know you are not opening it with prayer."

Dioxogen

H_2O_2 12v

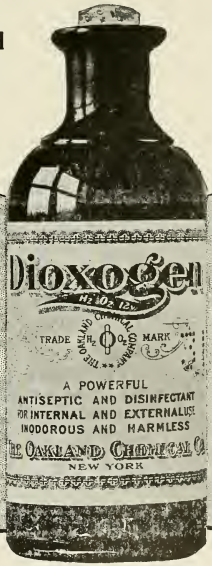
A Peroxide of Hydrogen

that is

1. Superior to U. S. Phar. standards for purity and strength.
2. Notably free from irritating or toxic action.
3. Odorless, practically tasteless, neutral in reaction and contains no acetanilid.
4. Powerfully antiseptic, detergent and healing.
5. Invaluable in the home, the office, the factory and wherever a dependable non-toxic germicide is needed.

The Oakland Chemical Co

59 Fourth Avenue New York City



Antiseptic
Germicidal
Cleansing
Deodorant
Prophylactic

Stable
Non-Toxic
Non-Irritating
Odorless
Non-Staining

DO MOVIES HURT THE EYES?

The fact that millions of peaple go to motion picture shows throughout the United States daily without experiencing any discomfort to their eyes, or that such eye trouble that is found is not traceable to "over indulgence" in the movies, would now seem to indicate that motion pictures are not injurious to the vision.

It is true, of course, that some people do experience a certain amount of eye-strain at a motion picture, but in these cases the trouble appears to be due to an ocular defect rather than to the motion picture. Such persons should, therefore, have the eyes examined by a competent eye specialist for it is quite certain that the same person would find even more discomfort in the same period of concentrated reading.

In this connection it may be pointed out that employees of motion picture playhouses, who spend a large part of the day looking at the pictures, do not seem to be troubled with their eyes more than the average individual. This is largely a personal observation since no extensive investigations have been made of the eyes of motion picture theater employes.

It is safe to say a person may witness a picture play lasting about an hour and a half each day without straining the eyes or experiencing any discomfort, provided the eyes are good and there are no hidden defects to the vision. Indeed it is not unlikely that a motion picture show might be the means of advising one of a faulty vision.

In case of eye trouble coming on after concentrating the eyes on the printed pages of a book for a long period one does not blame the book, but think at once of the eyes and the probable need of glasses.

Eye discomfort in the movies should therefore be regarded as a danger signal and should lead the sufferer to the doctor's office for an examination.

ELEVEN CARDIANL HEALTH RULES.

The following resume of a 45-minute talk on health and hygiene, given in a schoolroom in the mountains of North Carolina, was made by a child nine years of age to take home to her mother. The child certainly caught the essential points:

"Ef ye wash yerself inside and out no pisin will stick to ye and make ye sick.

"Yer mouth was made to eat with and yer nose to breathe with. Ef ye don't do hit this a-way ye might get a sickness.

"If ye haft to spit, kiver it up with dirt.

"Ye needn't hev varmints in yer hed ef ye don't want him. I fergit the name she give the stuff that will kill 'em, but ef ye kep clean they won't be any.

"Ef sores air made clean and kep clean ye won't get blood pisin.

"Worms is dirt come to life in ye as should not be that. Wash all garden stuff keerful and clean yer spring.

"Ef ye don't scour yer teeth yer mouth might be a swill pail, and ef waste is not got rid of ye might get a fever.

"Ef ye keep yer finger nails clean ye can scratch yer hid without danger of pisin. And hit air not polite to hev dirty nails.

"Ef ye hev sore eyes don't spread 'em among others. Be keerful to use no one's basin or towel or handkerchief.

"Ef ye see a baby with sore eyes tell a doctor. Little babies don't belong to hev nothing the matter with 'em.

"Ef ye get hurt get fixed right away or tomorrer it will be a bigger hurt. A house afiire is too late."

Why Tuberculous Persons Without Funds Should Not eLave Their Home States.

It is reliably estimated that several hundred tuberculous persons without funds come to Denver every year. Practically all of them come because they have the mistaken idea that climate will cure tuberculosis.

The yarrive, almost penniless, without having made any inquiries, or any provisions for their needs. Since Colorado has no state, and Denver no municipal tuberculosis sanatorium (merely a ward at the County Hospital for thirty-five very sick tuberculous residents), the care of such indigent persons is limited to a few free private sanatoria, which are continuously so overtaxed that admittance is a long and difficult matter. These sanatoria comprise: the two eJwish, which accept only a small number of Gentiles; a tent colony of men with a capacity for sev-

SPECIFIC INFECTIONS

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CAUTION

Sander & Sons' Eucalyptol

(Eucalypti Extract)

We received recently the following communication from Dr. W. H. Mayfield, Louisville, Ky.: "I have been using Eucalyptus, depending upon our drug stores which have been furnishing me the commercial article which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source or the results the physician expects from any other manufacture.

The application of Eucalyptol proper is so positive and distinct in in results that no doubt must be entertained as to the ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insists upon receiving it."**
—Sander & Sons, Bendigo, Australia.

enty "down-and-outers"; and a small home for a dozen destitute tuberculous women.

These tuberculous poor who migrate to Denver, finding no place where they can be cared for, look for light work in order to maintain themselves and often their dependent families; but the demand for such work is far in excess of the supply. Driven to any work they can get, with neither friends nor care, anxious, homesick, hopeless, they rapidly grow worse, and usually soon die. They die for lack of proper rest, food, fresh air, and medical attention, those essentials of treatment, which many of them could have had at home—or here with sufficient funds for two years' care. Without these essentials climate is of no avail. If it were, Denver would

welcome these tragic health-seekers instead of urging them, for their own best chances, to stay at home.

eDnver also urges that the states throughout the country plan definite programs to retain their indigent tuberculous, giving them effective treatment in state sanatoria or in their own homes.

The Denver Anti-Tuberculosis Society,
221 Coronado Building,
Denver, Colorado.

The old saying that "a little knowledge is a dangerous thing" holds true for the most part in the practice of medicine. When the members of a home nursing club or social uplift organization of some kind get it into their heads that they know a whole lot about treating disease, because some prominent doctor has filled them up with a bunch of pet prescriptions, those women are apt to be a dangerous proposition in their immediate community. Of course it is entirely proper to educate the public concerning the simple things that can be done to alleviate sickness and suffering but it is positively dangerous to teach the public how to use drugs.

The doctor who boasts of his frankness in letting his patients know everything that is being done for them and all about the kind and quality of medicine that is being prescribed for them is doomed to meet with a good deal of criticism from those who are made pupils in the superficial study of medicine and the patients themselves are done an infinite amount of harm through the acquisition of a knowledge that seldom is used intelligently.

Follow almost any general practitioner and soon you will hear him complain of the increase in the self drugging and the sale of proprietary medicine. And nine chances in ten if you follow him a little longer you will hear some patient say "I have, etc.," the doctor will promptly reply "go down to the drug store and get some aspirin and possibly some other of a great many more commonly used drug preparations. Of course these things then are picked up by advertisers in the lay press, heralded throughout the land as a wonderful preparation endorsed by the medical profession.

"Oh, consistency, thou art a jewel."

As a monstrous mirror so the general community reflects the facies of its doctors most accurately.

The United States Civil Service Commission announces that a large number of physicians are needed for employment in the Indian Service, the Public Health Service, the Coast and Geodetic Survey, and the Panama Canal Service. Both men and women will be admitted to examinations, but appointing officers have the legal right to specify the sex desired when requesting the certification of eligibles. Entrance salaries as high as $200 a month are offered, with prospect of promotion in some branches to $250, $300 and higher rates for special positions. Further information and application blanks may be obtained from the secretary of the U. S. Civil Service Board at Boston, New York, Philadelphia, Atlanta, Cincinnati, Chicago, St. Paul, St. Louis, New Orleans, Seattle or San Francisco, or from the U. S. Civil Service Commission at Washington, D. C.

A. M. A. Announcement.

The following announcements concerning the New Orleans session of the American Medical Association, April 26 to 30, will be of interest to physicians who are planning to attend the meeting: The Josephine Hutchinson Memorial Building, the home of the Tulane University School of Medicine, will house the Registration Bureau, the Information Bureau, the Association branch postoffice, and the scientific and commercial exhibits. It will also provide meeting places for three of the sections. The following hotels have been designated as the general and the various section headquarters for the session: Practice of Medicine, St. Charles; Surgery, General and Abdominal, Grunewald; Obstetrics, Gynecology and Abdominal Surgery, Grunewald; Ophthalmology, Monteleone; Laryngology, Otology and Rhinology, Monteleone; Diseases of Children, St. Charles; Pharmacology and Therapeutics, Planters; Pathology and Physiology, Planters; Stomatology, Lafayette; Nervous and Mental Diseases, Lafayette; Dermatology, De Soto; Preventive Medicine and Public Health, eD Soto; Urology, St. Charles; Orthopedic Surgery, Grune-

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A powerful digestant for the successful treatment of all forms of indigestion.

A Trial Dollar Bottle Free to Physicians who mention this journal.

Protonuclein

A combination of the principal endocrine glands, invaluable in all conditions of lowered vitality.

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Nephritin

A preparation of the kidney that has revolutionized the treatment of renal disease.

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A delicious food of high caloric value and vitamin content for nourishing the sick and convalescent.

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THE IDEAL INTESTINAL ANTISEPTIC. Indicated in Typhoid and other slow fevers, Dysentery, Chronic Diarrhœa and gastro-intestinal troubles.

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wald; Gastro-Enterology and Proctology, Lafayette; General Headquarters, Grunewald.

HYPOTHYROIDISM IN WOMEN.

In an able article on ductless gland therapy, J. L. Masterman-Wood (The Practitioner, May, 1919), discusses thyroid inefficiency in women and says that the female sex provides the clinician with the majority of cases. At puberty, at each menstrual flow, during pregnancy and lactation, the gland enlarges, which is evidence of the body's demand for further supplies. These constantly alternating periods of augmented functioning and comparative quiescence render the thyroids of women peculiarly unstable.

Masterman-Wood points out that thyroid must be administered with discretion in the cases of elderly sub-thyroidics possessing an enfeebled myocardium. He cites an interesting case of a woman of 70 who complained of great yeakness, tightness across and distension of upper part of the abdomen, frequent attacks of palpitation and vomiting, extremities always cold. Her digestion was very bad. She had marked constipation, difficulty in breathing, falling hair with baldness of the frontal and occipital regions. The eye-brow sign was marked, the skin dry and harsh and masses of fat had accumulated on the abdomen. There were no heart murmurs but the myocardium was 170. The urine contained a trace of albumin. In the treat-

men of this case he ordered her to bed and put her on stomachics and a rigid dietary at first. Later one-fifth of a grain of thyroid extract t. i. d. and trypsogen with the food were ordered. One month after the beginning of the treatment she was much better in every way, taking ordinary diet. The patient continued taking the thyroid extract in the form of hormotone without post-pituitary and made a most satisfactory recovery.

Masterman-Wood emphasized the importance of endeavoring to discover in every case the cause of the thyroid's failure. The exhibition of thyroid extract without the removal of the primary cause will undoubtedly benefit the patient, but remission of the treatment will, in most cases, result in a relapse. Pyorrhoea alveolaris, spetic conditions of the nose, tonsils, pharynx, or vagina, are causes which must be remedied before a permanent cure can be recorded.

In patients in whom the outstanding features are digestive disturbances and constipation, careful laboratory examination of the feces will place in the hands of the clinician the information necessary for the breaking up of this vicious circle, and thereby pave the way to satisfactory thyroid medication.

ACIDOSIS.

Acidosis is not a primary condition. It is not per se a disease. It is a pathologic (usually) state characteristic of many diseases. It occurs physiologically in change of altitude. It may be found in diabetes, nephritis, vomiting of pregnancy, starvation, gas poisoning, suppurative processes, following anaesthesia, etc. Increase of acids in the plasma is always evidence of faulty oxidation. Without adequate oxygen supply and great muscular work lactic acid is the end product instead of CO2. In the absence of carbohydrates the complete oxidation of fats does not take place and partially oxidized fatty acids (oxybutyric and diacetic, etc.) accumulate. Starling (Human Physiology, page 895) says: "The condition of acidosis, however is often brought on directly as the result of putting the patient on a strict anti-diabetic diet, i. e., one containing chiefly or exclusively fats and protiens, and may be produced in a healthy man by simple starvation, when the body has only at its disposal its stored up fats and porteins. It occurs in a marked degree on the administration of a diet consisting almost entirely of fats. In one experiment a healthy man took as his sole diet for five days a daily ration of 250 grams of butter, 200 grams of oil, and a little wine. The result was an intense acidosis such as is only found in the severest cases of diabetes, diacetic acid, oxybutyric acid and acetone being found in the urine in large quantities." Acidosis may result from failure of the kidneys to eliminate acid bodies with the consequent accumulation in the body. In nephritis, acidosis is due to this cause and is not uncommon.

"RESEARCH IN ANAESTHESIA."

At a meeting of the board of governors of the National Anaesthesia Research Society held in Cleveland in March, it was voted to have the annual convention of the society at Pittsburg the week of October 4, this meeting to be in conjunction with that of the Inter-State Anaesthetists Association, and the Pennsylvania Medical Society. It is possible that the Western Pennsylvania Dental Association also will join in the meeting.

In order to augment interest in the primary purpose of the society, which is research, the governors voted $200 to be apportioned in prizes for the best papers on research in anaesthesia, such papers to be read at the national meeting. This offer is open to all students, surgical, medical and dental practitioners in the United States.

Canvass of hospitals having revealed need for a uniform anaesthesia chart, a committee of three was appointed to prepare forms. The committee consists of Dr. A. F. Erdman, of Brooklyn; Dr. A. H. Miller, of Providence, and Dr. E. I. McKesson of Holedo. It was also decided to prepare and publish at the earliest moment possible a monograph on the best practices in anaesthesia in obstetrics.

"What did I say when I was coming out from under the influence of ether?"

"You swore terribly."

"I guess that was a good sign, eh?"

"Your surgeon seemed to think so. He said 'Wheel the old reprobate to his room and bring in the next victim.'"

NEURILLA FOR NERVE DISORDERS **NEURILLA**
If Patient suffers from **THE BLUES** (Nerve Exhaustion), Nervous Insomnia, Nervous Headache, Irritability or General Nervousness, give four times a day one teaspoonful **NEURILLA**
In nervous fretfulness of teething Children give five to twenty drops.
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PAIN

though primarily a symptom, will, if allowed to continue, soon depress or disturb every function of the body.

The prompt relief of pain, therefore, is always imperative, and to accomplish this

PHENALGIN

has no superior. Pain, no matter how severe or where located, is quickly controlled --- and with none of the drawbacks of the opiates or the other narcotic drugs.

The every day experience of thousands of physicians has shown conclusively that no other anodyne is so satisfactory in its effect, and at the same time so free from disagreeable or harmful action.

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This is the uniform verdict of medical men who have ever given

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a comprehensive trial in serious cases of septic poisoning, pneumonia, influenza, empyema, or of the acute and chronic infections generally.

Free from gastric disturbance or other objectionable effects, this time-tried preparation owes its value to the fact that it presents iodine in a form that can be used in doses large enough and for sufficient periods to assure the results desired.

Hypodermic use is preferable in severe cases. 20 to 40 minims every three or four hours, full strength deep in the gluteal muscles, until general improvement is noted.

Write for interesting data on the effective dosage of iodine

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Price $2.00

RHINOL CO., Inc., 1416 Broadway, New York

Literature on Application.

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

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Surgical Instruments
Laboratory Equipment
Office Furniture
Elastic Stockings
Abdominal Belts
Obstetrical Bags
"Boston" Emergency Bags
"DeLuxe" Office Scales
Oxygen and Nitrous Oxide

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32 West Fifth Street CHARLOTTE, N. C.

NEW OFFICERS OF THE NORTH CAROLINA MEDICAL SOCIETY.

President—Dr. Carl V. Reynolds, Asheville.
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7th District—Dr. L. A. Crowell, Lincolnton.
8th District—Dr. J. W. Ring, Elkin.
9th District—Dr. M. R. Adams, Statesville.
10th District—Dr. E. B. Glenn, Asheville.

The next annual meeting of the North Carolina Medical Society will be held in Charlotte, N. C., April 20, 1920.

OFFICERS OF THE TRI-STATE MEDICAL SOCIETY.

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Dr. W. L. Peple, Richmond, Va.
Dr. James K. Hall, Richmond, Va.
Dr. Matt. O. Burke, Richmond, Va.

The next annual meeting of the Tri-State Medical Association will be held in Spartanburg, S. C. 1921

Nitrobenzene Poison.

R. W. Scott, M.D., and P. J. Hanzlik, M.D., Cleveland (Journal A. M. A., April 10, 1920), report that during the last Christmas holiday season a large number of dark, ghastly looking patients who had been drinking "denatured alcohol" were brought into the hosptal within a few days. As a rule, they were unconscous. The dark, almost black, discoloration was limited mainly to the extremities, face and neck, including a fringe of the upper portion of the chest. In other words the richly vascular, pigmented and dependent portions of the body were principally involved. The color was not the typical blue of ordinary cyanosis, but rather a livid, brown-black or nearly black color, suggesting the presence of methemoglobin in the blood. Except for the deep narcosis and a moderately rapid pulse, the patients were otherwise practically normal. No other circulatory and no respiratory disturbances were detectable. After a deep sleep of about twenty-four hours, the patients left the hospital fully recovered. The patients did not seem to suffer, and there were no fatalities. The peculiar dark (black) discoloration in these patients was due to methemoglobinemia arising from the ingestion of nitrobenzene in "denatured" alcohol.

Circumcision Forceps.

The circumcision forceps devised by Myer N. Moskovich, Chicago, and described in the Journal A. M. A., April 24, 1920, consist of a pair of handles, not unlike those of the ordinary hemostatic forceps, terminating in circular jaws corrugated on their inner surfaces and having seven equidistantly placed indentations to permit the passage of sutures while the forceps are still in place. The forceps may be used with any of the various methods of performing a circumcision.

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PAIN

though primarily a symptom, will, if allowed to continue, soon depress or disturb every function of the body.

The prompt relief of pain, therefore, is always imperative, and to accomplish this

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has no superior. Pain, no matter how severe or where located, is quickly controlled — and with none of the drawbacks of the opiates or the other narcotic drugs.

The every day experience of thousands of physicians has shown conclusively that no other anodyne is so satisfactory in its effect, and at the same time so free from disagreeable or harmful action.

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Well has it been termed by those who use it in preference to any other analgesic — "the logical supplanter of opium."

Samples on request

GEO. C. COOK & CO. INC.
Successor to Etna Chemical Co.
59 Bank Street, N.Y.

When Black Turned Pale.

A colored man whose name is White
  Has got me out of whack,
For, while I know the man is White,
  I know that he is black.

I've seen another curious sight,
  And so perhaps have you;
I know a man who's always white
  And yet he's often blue.

And there's another funny man,
  He really is, I ween,
For while he's white from tip to toe
  He certainly is green.

Of costly books he owns a stack,
  He even reads in bed,
And though I know his name is Black
  He's certainly well read.

He always threatens to "come back,"
  In accents far from mellow,
But though his fighting name is Black,
  We know that he is "yellow."

But this man's neither white nor black,
  He's well known in our town—
Nor is he yellow, green or red
  His name is simply Brown.

—The Homoeopathic Recorder.

Pin Worms Are Parasites which are communicated from one person to another through the transportation of their eggs from the intestine of one person to that of another, by means of water, food, flies, and possibly through the soiling of the hands. It is probable that the fly is the most common means of communication. It has been shown that a fly lighting only for a few seconds upon a morsel of food may deposit an egg which, being swallowed, will lead to the development of parasites in the intestine of the host.

The best remedy for these troublesome parasites is santonin, of which the dose should be varied according to the age. The following rule is a good one: One to 2 years of age, one grain; 2 to 4 years, 2 grains; 4 to 6 years, 2½ grains; 6 to 10 years, 3 grains; 10 to 12 years, 3½ grains; 12 to 18 years, 4 grains; an adult 5 grains. Santonin should be given three times a day on alternate days for one week. In addition, a quassia enema should be administered twice daily. The solution should be prepared by soaking two ounces of quassia in a quart of water over night. In many cases the addition of soap to the water answers as well as the quassia. For the itching, apply within and about the anus an ointment prepared by the addition of one dram of calomel to an ounce of yellow vaseline. In obstinate cases it is sometimes necessary to repeat the treatment after an interval of a week.

High Heels.

The Illinois Health News traces defects in eyesight and hearing to bad attitudes in standing and sitting.

"The stooping posture cramps the lungs and other internal organs, and interferes with normal development. In this way, diseases get their first foothold. It follows, therefore, that the first step in preventing consumption may be to fit a child with proper glasses; and the second step must be to create a habit of right breathing and posture, either when sitting, standing, walking or running. Flat foot and broken arches are the result of carelessness in the use of the feet, and the wearing of improper shoes. High heels are an abomination unto the Lord. They are largely responsible for the weak ankles of girls and women. They interfere with grace of movement. The girls imitate cows in walking upon their toes, and many also acquire the bovine grace of walking. 'Hammer toes,' sometimes requiring amputation, are another product of high heels. The high heel insanity is developed during school life, and one of the best preventives is the teaching of graceful exercises."

Cathartics.

The Journal A. M. A. presents the following conclusions:

1. With the average adult, a daily bowel movement is not a necessity for a state of health.

2. Cathartics are habit-producing drugs, admissible only in cases of temporary disturbance due to harmful material in the intestine, and in those suffering from an intestine disabled by local or general disease or debility, who in default of curative measures may have to be provided with a habitual evacuant. Especially obnoxious is the habitual use of purgatives in childhood.

3. Mild laxatives and enemas should replace the more drastic drugs. The mildest is the best, and the patient should be carefully fitted with the cathartic he needs.

4. Acute abdominal pain, unless accompanied with diarrhea, contraindicates catharsis. On the other hand, some patients with a chronic tendency to abdominal pain may keep themselves comfortable by suitable catharsis.

5. Cathartics are useful as a means of diagnosis for the determination of the degree to which symptoms are due to disturbance within the intestine.

6. Routine purgation, be it preoperative, postoperative or postpartum, be it employed in the treatment of diarrhea, apoplexy, dropsy or uremia, is undesirable.—Medical Brief.

Medical Interne—Saint Elizabeth's Hospital.

The United States Civil Service Commission announces an open competitive examination for medical interne. Vacancies in Saint Elizabeth's Hospital, Washington, D. C., at $1,200 a year and maintenance, and vacancies in positions requiring similar qualifications, at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any

(Continued on page 20)

Qotations from Doctors: No. 2

"The many cases of ovarian neuralgia that I have encountered in my practice during the past fifteen years, have been treated with hot applications of

I frequently use a weak solution of menthol over the part . . . then I dry the field and apply Antiphlogistine. The analgesic effect is instantaneous, and the general result is highly satisfactory to myself and my patients.

In dysmenorrhea I adopt the same procedure, making the applications over the symphysis, etc. Antiphlogistine always serves me well."

THE DENVER CHEMICAL M'F'G. COMPANY
NEW YORK

vacancy by reinstatement, transfer, or promotion.

Appointees whose services are satisfactory may be allowed the temporary increase granted by Congress of $20 a month.

The positions are tenable for one year. During the year, however, a post-graduate course in mental and neurological diagnostic methods is given, an examination is held, and promotions to the next grade, junior assistant physician, are made. Beyond this there is regular advancement for employees whose services are satisfactory. Saint Elizabeth's Hospital has over 3,000 patients and about 800 employees to care far. In addition to the general practice offered, the scientific opportunities in neurology and psychiatry are unsurpassed.

Both men and women, if qualified, may enter this examination, but appointing officers have the legal right to specify the sex desired in requesting certification of eligibles.

On account of the needs of the service papers will be rated promptly and certification made as the needs of the service require. In the absence of further notice applications for this examination will be received by the Commission at Washington, D. C., until the hour of closing business on July 1, 1920. If sufficient eligibles are obtained the receipt of applications may be closed before that date, of which due notice will be given.

Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated:

Subjects.	Weights.
1. Physical ability	10
2. Education and experience	90
Total	100

Under the second subject competitors will be rated upon the sworn statements in their applications and upon corroborative evidence.

Applicants must show that they are graduates of a reputable medical college, or that they are senior students in such an institution and expect to graduate within six months from the date of making oath to the application. The names of senior students will not be certified for appointment until they have furnished proof of actual graduation.

Applicants must not have graduated previous to the year 1915 unless they have been continuously engaged in hospital, laboratory, or research work along the lines of neurology or psychiatry since graduation, which fact must be specifically shown in the application.

Unmarried eligibles are preferred.

Applicants must have reached their twentieth birthday on the date of the examination.

Applicants must submit with their applications their unmounted photographs, taken within two years, with their names written thereon. Proofs of group photographs will not be accepted. Photographs will not be returned to applicants.

This examination is open to all citizens of the United States who meet the requirements.

Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass., New York, N. Y., New Orleans, La.; Honolulu, Hawaii; Post Office, Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Calif.; Old Customhouse, St. Louis, Mo.; Administration Building, Balboa Heights, Canal Zone; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

Applications should be properly executed, including the medical certificate but excluding the county officer's certificate, and filed with the Civil Service Commission, Washington, D. C., without delay.

An act of Congress approved July 11, 1919, provides:

"That hereafter in making appointments to clerical and other positions in the Executive branch of the Government in the District of Columbia or elsewhere preference shall be given to honorably discharged soldiers, sailors, and marines, and widows of such, and to the wives of injured soldiers, sailors, and marines who themselves are not qualified but whose wives are qualified to hold such positions."

Applicants entitled to preference should attach to their application their original discharge, or a photostat copy,

or certified copy thereof, or their official record of service, which will be returned after inspection by the Commission.

The Thyroid in Malaria.

J. B. Hume, in the British Medical Journal, states he has seen enlargement of the thyroid as a complication of malaria—a complication not hitherto recognized—during the East African campaign. His interest was heightened when, in June, 1918, during an attack of malaria, he developed a marked enlargement of the gland himself. The condition is characterized by an acute enlargement of one or both lobes of the thyroid gland during an attack of malaria, and occurring some 12 to 30 hours after the fall of the temperature. In no case of the thirty, all white soldiers, was there a family or personal history of thyroid disease. Malarial parasites were found in the blood in every case, usually in rather scanty numbers. Subtertian forms predominated, but benign tertian and mixed infections also occurred. In a typical case the enlargement of the thyroid appeared suddenly, in the course of the attack of malaria, from 12 to 30 hours after the fall of the temperature. The previous pyrexia had lasted from one to three days, and no subsequent rise of temperature occurred. One or both lobes became markedly swollen and somewhat painful and tender to touch. There was no redness of the skin, the consistency of the swelling was uniform, and it showed all the characteristics of a generalized enlargement of the gland. Dysphagia, in varying degrees, was a prominent symptom. Pain and throbbing in the head were frequent. There was usually a slight muscular tremor. In only two cases was there any exophthalmos. Tachycardia was very constantly present, the pulse rate being usually in the neighborhood of 100-110, but sometimes as high as 130. Some alteration of the heart sounds at the pulmonary base was common—either a systolic bruit or an accentuation of the second sound. The spleen was enlarged at same stage of the attack in about 70 per cent of cases. The treatment was usually carried out on routine lines. Quinine buhydrochloride was given by mouth and in a few cases also by the rectum. The usual procedure was to give five grain, three hourly, omitting one dose in the night, over the first four days. Then a smaller dose, 15 to 20 grains daily, combined with arsenic, increasing to the full dose over the relapsing period on the ninth, tenth, and eleventh days. In most of the cases there was, in from four to ten days, a marked reduction of the swelling, but in Hume's own case it had not entirely disappeared at the time of the report. In subsequent malarial attacks it has invariably enlarged for a time. He is inclined to believe, from these and other observations, that the changes in the ductless glands in malaria may be far more marked than present knowledge shows, and that physiological and pathological research may show that in these changes may be found the explanation of some at least of the conditions complicating malaria.

The predominant feature of tuberculosis of the bladder is intractability to all ordinary treatment and should therefore always come into mind when such treatment fails in any case.

King Solomon

who was noted for the pithy nature of his remarks, once said, "The lipse of the wise disperse knowledge."

Solomon's subjects were affected with the ills as those that hamper the people of the twentieth century — among them constipation.

Had Pluto Water been known in Solomon's tims, it is not hard to believe he would say, "The lips and pen of the wise physician prescribe Pluto."

PLUTO

FRENCH LICK SPRINGS HOTEL CO.
French Lick, Indiana

Blood Pressure Rules.

"There is no form of anesthesia, there is no age of patient, there is no type of operation in which one expects to see an elevation of blood pressures during the operation. Our fears are from low blood pressures, rapid pulse rate, and heart fatigue.

"Circulatory Depression or Decompensation is best divided for surgical operation into three degrees:

"1. Safe. 10 to 15 per cent increase on pulse rate without change in pressure. 10 to 15 per cent decrease in blood pressure without change in pulse rate.

"2. Dangerous. 15 to 25 per cent increase in pulse rate with 15 to 25 per cent decrease in blood pressures.

"3. Fatal. Progressively increasing pulse rate above 100 with progressively falling blood pressures of 80 or less systolic and 20 or less pulse pressure for more than 20 minutes.

"The first degree is never fatal but may gradually merge into the second degree. The second degree, beginning shock, may be regarded as dangerous in the sense that it exhausts the heart and disarms it for defense against continued low blood pressures.

"The third degree is always dangerous to the life of the patient. A vicious circle is established consisting of the low blood pressure, the reduced heart nourishment which in turn still further reduces the blood pressure, and so on progressively. This usually develops within 20 minutes after the third degree depression occurs and when once established proves fatal at once or at most within three days. The time in which shock proves fatal depends upon the cardiac muscle reserve and the effectiveness of the treatment employed. Third degree depression may be present in a patient without the usual alarming signs, but after the vicious circle becomes established, evidences of shock become well marked.

Value of Blood Pressure Readings.

"With the palpating finger, no matter how skilled, one cannot determine all the characteristics of the pulse or the pulse pressures with sufficient accuracy, to be of much prognostic value as to the onset and degree of circulatory depression during a surgical operation.

"Blood pressures and pulse determinations every few minutes during all of the more serious operations as well as in many of the so-called minor cases are a part of the duties of every anesthetist. The information regarding the reaction to certain procedures and the patient's fitness for the operation, his immediate prognosis can be gained in no other way with the same degree of accuracy.

"The procedure is made convenient and easy by fastening the blood pressure cuff to the right arm and snugly binding the scope below it with elastic webbing. Readings can then be made at will without disturbing sterile sheets and without losing the continuity of anesthesia.

Preserving Muscle Tone.

"A suitable graphic chart is preferable as a record because the tendencies of the circulation are readily compared from time to time and because the prognosis based upon these tendencies and the character of operative work to follow, can be more accurately made.

"Where nitrous oxid-oxygen was available in skilled hands the war has corroborated our previous observations that this form of narcosis is one of the best shock prophylactics we have.

"It is not remarkable that nitrous oxid-oxygen should be safer in shock and in preventing shock than other anestheics when one recalls the fact that muscle cannot be parlyzed with it.

"The greatest responsiblity of the anesthetis is to avoid relative overdosing of the patient in an effort to please the surgeon who may be demanding a flabby musculature.

"The relaxation is not confined to striated muscles of the abdomen and extremities, but extends to the striated muscle of the heart. The effect is at once reflected by the pulse pressure and if pushed too far the diastolic pressure is also decreased showing the action upon smooth muscle as well.

"The clinical study of blood pressure has convinced us that the final factor in shock is muscular exhaustion or an interference with muscular action. One thing is most apparent, the average patient having been profoundly anesthetized for extreme relaxation, is half shocked ,a second degree depression, and it often takes but little trauma to complete the picture of third degree depression."

In this connection it is interesting to

(Continued on page 24)

POND'S EXTRACT

The distressing stinging and congestion caused by the acute nasal affections prevalent during May and June can be promptly relieved by spraying the nasal passages every hour or so with the following:

℞ Adrenalin Chlor. m. XX
Pond's Extract dr. I to II
Aquae destil q. s. ad. oz. I
M et Sig. Use as spray every hour or two.

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For Forty Years
Vaporized Cresolene
has held its position as a valuable remedy for certain bronchial diseases of childhood.

It is particularly useful in the treatment of the very young.

Cresolene is indicated in Whooping Cough, Spasmodic Croup, Bronchitis, Asthma, Broncho-pneumonia, Coughs and the bronchial complications incident to Scarlet Fever and Measles.

Vaporized Cresolene is destructive to Diphtheria bacilli and may be advantageously used in connection with the treatment of this disease.

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Pupils will be lodged in the delightful new nurses' home—have an eight-hour working day, daily classes and lectures.

Apply for further information to

Superintendent City Hospital,
Greenville, S. C.

WANTED—An experienced trained nurse to act in the capacity of head nurse and matron in Glenwood Park Sanitarium. W. C. Ashworth, President, Greensboro, N. C.

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A Physiologically Correct Germicidal Suture
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Sal Hepatica
THE STANDARD SALINE LAXATIVE
Samples on request
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New York

Treatment of Acute Pulmonary Abscess—W. D. Tewksbury (N. Y. Med. Jour., November 22, 1919) reports 14 cases treated with artificial pneumothorax. In 11 the abscess was in the right lung and in 3 in the left. While the proportion of cures with medical treatment is less than 10 per cent, with surgery it is from 50 to 65 per cent. Of the 14 cases 11 were cured and 3 died. According to the author's experience artificial pneumothorax is the most rational and successful treatment for this condition.

report that all the members of the Toledo Society of Anesthetists have adopted this standarized conception of cardio-vascular depression and are using it graphically on their charts. Their records when compiled should develop some valuable and original information.

Early Surgical and Orthopaedic Treatment in Hemiplegia.—Joseph Byrne, Alfred S. Taylor and Samuel W. Boorstein (Surg., Gynec. and Obst., October, 1919) discuss this subject from a neurological and surgical standpoint and reach the following conclusions: 1. Early operation within two to four weeks, or even after a much longer period, may be indicated in hemiplegia: a. Where the intracranial pressure threatens medullary strangulation, no matter what the site or nature of the lesion. b. In extradural hemorrhage, with or without intradural hemorrhage or cerebral contusion, where cerebral compression threatens life or permanent disability. d. In intracerebral hemorrhage where focal compression threatens life or permanent disability. 2. A subtemporal decompression and evacuation of the clot is a simple procedure and should be used in every case of fresh hemiplegia where the above mentioned are present. 3. If the patient be unconscious, an anesthetic need not be used, as the shock of the operation is small. 4. Even in old cases of hemiplegia decompression is of benefit. 5. Decompression should be used even in cases due to embolism or thrombosis. 6. The deformities and contractures of hemiplegia can be prevented. 7. Patients with hemiplegia should be put in the same category as anterior poliomyelitis and receive proper orthopaedic treatments from the beginning. 8. Plaster splints should be applied immediately to prevent contractures. 9. Massage and exercises are indicated and should be used intelligently. 10. Proper use of the limbs should be shown to the patients and encouraged. 11. In old and neglected cases deformities should be corrected and recurrences prevented.

AC UTE POISONING FROM BISMUTH SUBSTITUTE.

Reported in "La Presse Medicale," February 25, 1920.

Constantinesco and Jonescu mention as preliminary that bismuth poisoning due purely to bismuth is commonly called an impossibility. Given bismuth salts of guaranteed purity and there is no limit to the quantity which may be ingested with impunity in x-ray work. In apparent bismuth poisoning one must of course find the true motivation of the symptoms, whether these are due to an impurity like arsenic or to some other and extrinsic cause. In a case in point a young man with severe and persistent pain referred to the stomach, of long duration and appearing two hours after meals, subnitrate of bismuth for x-raying was used in the absence of the subcarbonate and of barium salts. Three teaspoonfuls of the subnitrate were swallowed in a half pint of milk. Nothing developed after the experience until Epsom salts were given by oversight in the evening. When these acted some time in the morning there was much nausea and prostration and the patient collapsed at stool. The x-ray examination had been negative. The stools were black with bismuth. At nine a. m. the patient was seen by the visiting physician to be in a state of collapse, cyanotic and algid with subnormal temperature. Theobromine was given but the condition became aggravated with the development of tonic convulsions and fixed pupils. Venesection was practiced and the blood showed cyanosis but coagulability was normal. Serum, adrenaline, camphor and caffein were given and next day the condition of the patient was nearly normal. The blood was subjected to a spectroscopic examination and chemical tests. The bismuth was analyzed and found pure. There was no obstacle in the gastroenteric tract which could have led to stagnation. The spectroscope showed a special band between the two absorption bands characteristic of oxyhemoglobin which was put in association with the toxic manifestations.. The blood was positively free from bismuth but contained nitrous acid. But nitrite poisoning should have caused the formation of methemoglobin and this was not found. Instead apparently the oxyhemoglobin had been transformed to nitrohemoglobin and reduced hemoglobin. In any case bismuth subnitrate may be toxic if anything occurs to change the nitric to nitrous acid. In this case the dose of salts may have been responsible, although the mechanism is obscure.

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A Peroxide of Hydrogen

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1. Superior to U. S. Phar. standards for purity and strength.
2. Notably free from irritating or toxic action.
3. Odorless, practically tasteless, neutral in reaction and contains no acetanilid.
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5. Invaluable in the home, the office, the factory and wherever a dependable non-toxic germicide is needed.

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Antiseptic
Germicidal
Cleansing
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Prophylactic

Stable
Non-Toxic
Non-Irritating
Odorless
Non-Staining

Is Diabetes Curable?—Laumonier gives a joint review of recent articles on the cure of diabetes. The question, he states, is embarrassing, for there are numerous types of the malady and it may not be possible to control the cause of some of them. In the absence of casual therapy cure must be relative. It has been stated of late that glycosuria may be a defense reaction which should not be antagonized directly. To suppress the diet-carbohydrate is a method which goes back to Bouchardat, but this can hardly be called curative. It is a prophylactic of acidosis and to that extent should be practised to a certain degree. The danger of reduction of the forces from underfeeding has been checked by determining the carbohydrate tolerance in certain special plans of diet, as in the oatmeal cure, but the tolerance of the individual is not a constant but a variable. The idea of fasting outright originated with Guelpa, but he has received little credit for it which has gone to Allen and Joslin. Guelpa added purgatives and his idea was really to combat autointoxication rather than glycosuria. The principle involves several days of fasting and purging followed by a vegetable diet in the beginning. The Americans do not use purgatives and allow alcohol as a substitute for carbohydrate. He speaks of the results attained by Allen and Joslin as "mediocre," which appears to show that he is unaware of the showing obtained under favorable conditions. He also seems unaware of the fact that Kellogg of the United States gives full and ample credit to Guelpa for having been the first to introduce the fasting cure into therapeutics in connection with personal experience at Battle Creek.—Gazette des Hopitaux, March 23, 1920, xciii, 29.

Camphor—Douglass W. Montgomery of San Francisco, discussing some of the medicaments used with success in the past, gives the following prescriptions containing camphor:

Rosacea—In cyanotic cases of rosacea in which the skin is cool, often cooler than normal, hot soakings with borate of soda, or bicarbonate of soda solutions may be employed in the evening, followed by a salicylic acid lotion.

Rx Acid salicyl ---------0.5-1.00
Spts. camphorae ---- 25.00

An acetic acid lotion may be used instead:

Rx Spts. camphorae
Aceti
Tr. benzoin ---------aa10.00
Spts. vini dil. -------- 150.00

The camphor modifies the acidity of the other two principal ingredients, salicylic and acetic acid.

Chilblains—In this condition, which is an edematous fluctuation in the blood-vessels of the true skin, camphor is an old and much used remedy. It seems to act in causing resolution of the edema, and in relieving the irritability of the nerves. The following is Ewalt's formula:

Rx Camphor ---------- 5.00
Ol. terebinth ----------20.00
M. Sig.: Rub into the chilblains.

The camphor mitigates the irritation of the oil of turpentine.

Frostbite—The following is recommended by Lederman:

Rx Camphor ---------- 5.00
Bal. Peru ---------- 2.50
Vaseline ----------aa50.00
—Indianapolis Medical Journal.

6861. Adulteration and misbranding of --oil wintergreen leaf. U. S. * * * v. 1 69-Pound Can of Oil Wintergreen Leaf. Consent decree of condemnation and forfeiture. Product ordered released on bond. (F. & D. No. 9210. I. S. No. 13603-r. S. No. E-1080.)

On August 6, 1918, the United States attorney for the Southern District of New York, acting upon a report by the Secretary of Agriculture, filed in the District Court of the United States for said district a libel for the seizure and condemnation of 1 69-pound can of oil wintergreen leaf, remaining unsold in the original unbroken package at New York, N. Y., alleging that the article had been shipped on or about July 13, 1918, by J. B. Johnson, Hickory, N. C., and transported from the State of North Carolina into the State of New York, and charging adulteration and misbranding in violation of the Food and Drugs Act. Analysis of a sample of the product by the Bureau of Chemistry of this department showed that it consisted in part of synthetic methyl salicylate.

Adulteration of the article was alleged in the libel for the reason that it was

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Manufacturing Pharmacists and Chemists

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CAUTION

Sander & Sons' Eucalyptol

(Eucalypti Extract)

We received recently the following communication from Dr. W. H. Mayfield, Louisville, Ky.: "I have been using Eucalyptus, depending upon our drug stores which have be furnishing me the commercial article which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source or the results the physician expects from any other manufacture.

The application of Eucalyptol proper is so positive and distinct in in results that no doubt must be entertained as to the ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insists upon receiving it."**

—Sander & Sons, Bendigo, Australia.

sold under and by a name recognized in the United States Pharmacopoeia, which differed from the standard of strength, quality, and purity as determined by the tests laid down in said Pharmacopoeia, and its strength and purity fell below the professed standard and quality under which it was sold; and for the further reason that a substance, synthetic methyl salicylate, had been mixed and packed therewith so as to reduce, lower, and injuriously affect its quality and strength, and had been substituted in part for all wintergreen leaf, which the article purported to be.

Misbranding of the article, considered as a drug, was alleged for the reason that it was an imitation of, and was offered for sale under the name of, another article, to wit, oil of wintergreen

leaf, and, considered as a food, for the further reason that it was an imitation of, and offered for sale under the distinctive name of, another article, and the statement on the invoice, "Oil Wintergreen Leaf," was false and misleading, and deceived and misled the purchaser.

On March 10, 1919, the said J. B. Johnson, claimant, having consented to a decree, judgment of condemnation and forfeiture was entered, and it was ordered by the court that the product should be released to said claimant upon the payment of the cost of the proceedings and the execution of a bond in the sum of $216, in conformity with section 10 of the act, conditioned in part that the product should be relabeled as imitation oil of wintergreen leaf.

C. F. Martin,
Acting Secretary of Agriculture.

A Superior Cod Liver Oil Preparation.

The chief—in fact the only objection one can have to cod liver oil is its disagreeable taste, and condition of reduced toleration brought about by its continued use.

It was this objectionable feature of cod liver oil which finally induced chemists to produce more palatable preparations of the oil. Chief among these more palatable preparations of cod liver oil is Cord. Ext. Ol. Morrhuae Comp. (Hagee).

In the manufacture of Cord. Ext. Ol. Morrhuae Comp. (Hagee) the aim of maximum of therapeutic efficiency and palatableness has been achieved. Cord. Ext. Ol. Morrhuae Comp. (Hagee) contains the essential therapeutic properties of the plain oil with none of its disagreeable features. If cod liver oil is indicated Cord. Ext. Ol. Morrhuae Comp. (Hagee) may be used with every assurance that in it are to be found the reconstructive tissue-building powers of the plain oil.

Failure of the Endocrine Glands to functionate properly is known to be the cause of a good many disorders that give the practitioner a lot of worry. These cases must be studied carefully and the Endocrine Gland Preparations prescribed rationally. These preparations may be used singly or in combination. Of course it is useless to give any product that the patient does not need. The thing to do is decide what is lacking and specify the gland to supply the deficiency.

The glands used by the Armour Laboratory are selected with great care and are dessicated in vacuum ovens at a low temperature to insure the therapeutic active principle of that gland's being uninjured.

The Use of the Phrase "Wassermann Reaction"—Kolmer (American Journal of Syphilis) objects to the phrase "Wassermann Reaction" as a designation of the complement fixation test in syphilis for the reason that the reaction in this disease is based upon principles discovered by Bordet. The reaction should not be designated "Bordet-Gengou" because Wassermann, Neisser and Bruck were the first to utilize the phenomenon in the serological diagnosis of syphilis. Detre deserves more consideration than he has received, since he published his results only ten days after Wassermann and his colleagues.

Wassermann himself is apparently the only one who at present uses the original Wassermann technique, which is after all based upon an incorrect hypothesis in regard to the specific nature of the syphilitic antigen, and his explanation of the reaction along with his technique has long ago been abandoned.

Kolmer would also demand a more careful use of the terms "reaction" and "test," reserving the former for the results of the test, and the latter for the technique or method employed.

Typhus Curbed in Russia; Spreads Fast in Serbia—Announcement is made that the mortality from typhus fever has been reduced in Russia from 47 per cent to 6 per cent by the use of a new serum adopted by the Red Cross workers at Ekaterinodar, in the Kuban district of Russia. Confidence is expressed that the serum may save Russia from decimation by typhus. The disease has, however, made its appearance in Serbia and is being spread with alarming rapidity by refugees fleeing from the bolsheviki on the south Russian front. American Red Cross officers at the request of the government are preparing to disinfect every person entering the country.

Peptenzyme

A powerful digestant for the successful treatment of all forms of indigestion.

A Trial Dollar Bottle Free to Physicians who mention this journal.

Protonuclein

A combination of the principal endocrine glands, invaluable in all conditions of lowered vitality.

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Nephritin

A preparation of the kidney that has revolutionized the treatment of renal disease.

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A delicious food of high caloric value and vitamin content for nourishing the sick and convalescent.

PROTECT YOUR HEALTH!

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Is absolutely Odorless, yet strong and effective. Has won the endorsement of the medical profession for over forty years.

Write for sample and booklet to the manufacturers,

HENRY B. PLATT CO., 51 Cliff Street, New York

N. Y. Post-Graduate Hospital Announces Endowment Fund Gifts.

Mrs. Henry R. Rea, of Pittsburgh, Pa., has given $100,000 to the New York Post-Graduate Medical School and Hospital's $2,000,000 Endowment Fund. This gift was announced by Dr. Ludwig Kast, a member of the Endowment Fund Committee and Professor of Medicine in the school.

Mrs. Rea's benefcation, given in memory of her parents, the late Henry W. and Mrs. Oliver, of Pittsburgh, is to be used in advancing medical standards by providing additional opportunities for post-graduate study and research to practicing physicians and surgeons.

Twenty or more scholarships are to be provided by the fund, available to doctors unable to make the financial sacrifices heretofore required in giving up their practices during the periods of post-graduate work.

Mrs. Rea's gift is probably unique among benefactions to educational institutions in that it is for the benefit of active professional men to increase their usefulness to the community. The doctor's responsibility to the public and the handicaps under which he is placed in keeping abreast of medical progress, were particularly brought home to Mrs. Rea during the war, while serving in a volunteer capacity as Field Director of the Walter Reed Hospital in Washington.

Terms under which the scholarships will be available to doctors are now under consideration by the Board of Directors of the Post-Graduate Medical School. It is understood that this assignment will be based on the recommendations of State and county medical associations. The records of doctors for public service in the communities will also be an important factor in the choice, together with the usual professional qualifications.

In addition to Mrs. Rea's gift, James C. Brady, of New York, has given $50,000 towards the first $1,000,000 and has pledged $125,000 to help in raising the $2,000,000. Vincent Astor gave $50,000 and has promised an additional $75,000 after the first $1,000,000 has been raised.

The total of the fund as announced by Dr. James F. McKernon, Chairman of the Committee, on Saturday, is now $329,000.

Stiff and Painful Shoulders—Alfred J. Brown (Surg., Gynec. and Obst., October, 1919) suggests that a tear of the tendons of the latissimus dorsi and teres major muscles may play an important role in the etiology of some of the cases of stiff and painful shoulder, and summarizes his views as follows: 1. Stiff and painful shoulder of a certain type falls into the general class of muscular strain about joints, and this muscular strain centers itself in the tendons of the teres major and latissimus dorsi muscles. 2. The condition manifests itself in (a) pain, produced by stretching the injured muscles; (b) a distinct localized point of tenderness over the site of injury in the tendon and its attachment to the bone; and (c) early development of a moderate amount of atrophy of the deltoid muscle due to the involvement of the circumflex nerve in the inflammatory and reparative processes. 3. The condition is amenable to treatment along lines which have proved successful in similar conditions in other parts of the body. This treatment is conservative and is directed toward (a) prevention of trauma, (b) hastening of resolution of edema and exudative process, and (c) the formation of a pliable point of union by means of well vascularized connective issue.

Operation for Fistula in Ano—G. T. Tyler (South. Med. Jour., November 10, 1919) writes in favor of the Elting operation for fistula without division of the sphincter, which he thinks is not difficult to those familiar with the Whitehead operation for hemorrhoids. The fistulous tract is located, the sphincter well dilated, and the bowel circumscribed at the muco-cutaneous junction. It is dissected freely, beyond the internal opening of the fistula, until the healthy gut can be brought down for suture to the skin. That part below the fistula is removed and the bowel attached to the skin by interrupted silk sutures. A rectal plug is inserted to prevent oozing. The evternal opening of the fistula is enlarged, the tract curetted, and a small drain inserted for three or four days. In two weeks most fistulas are healed, though some require much longer.

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If Patient suffers from THE BLUES (Nerve Exhaustion), Nervous Insomnia, Nervous Headache, Irritability or General Nervousness, give four times a day one teaspoonful NEURILLA
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a comprehensive trial in serious cases of septic poisoning, pneumonia, influenza, empyema, or of the acute and chronic infections generally.

Free from gastric disturbance or other objectionable effects, this time-tried preparation owes its value to the fact that it presents iodine in a form that can be used in doses large enough and for sufficient periods to assure the results desired.

Hypodermic use is preferable in severe cases. 20 to 40 minims every three or four hours, full strength deep in the gluteal muscles, until general improvement is noted.

Write for interesting data on the effective dosage of iodine

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H. H. Hazen and F. J. Eichenlaub, Washington. D. C. (Journal A. M. A., May 8, 1920), report the records of sixteen cases of plantar warts treated by the roentgen ray. Some of those of longest duration responded most quickly to treatment, and neither size nor location appeared to play any part. Almost invariably the pain disappeared in from two to four days after the first treatment. Their technic is to give 1 1-3 Holzknecht skin units every three to four weeks, the dosage being estimated according to the method long advocated by MacKee. When the lesion has disappeared they usually give an additional treatment to be sure of a complete cure. They use no filter in this work, as they feel that on superficial lesions results are much better with the unfiltered ray. The cure seems to be permanent.

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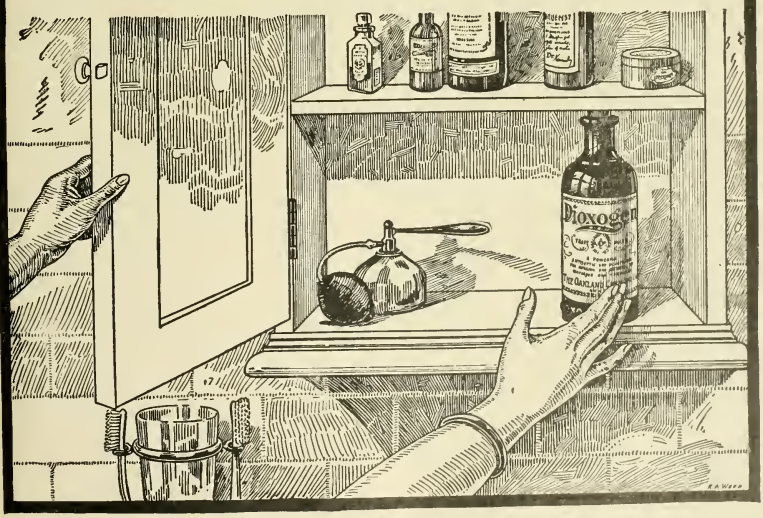

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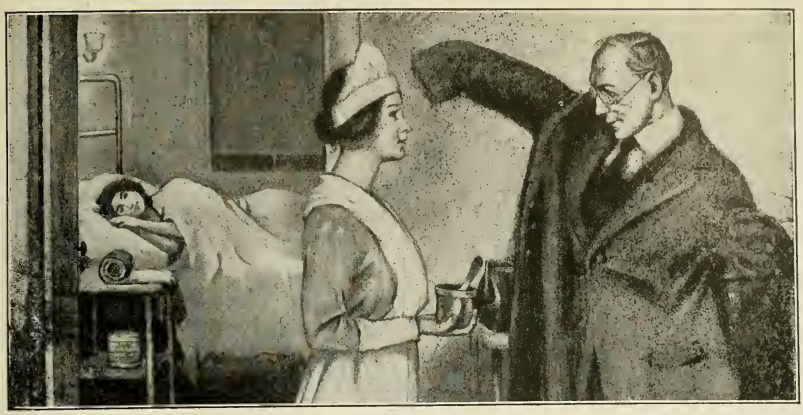

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9th District—Dr. M. R. Adams, Statesville.
10th District—Dr. E. B. Glenn, Asheville.

The next annual meeting of the North Carolina Medical Society will be held in Charlotte, N. C., April 20, 1920.

OFFICERS OF THE TRI-STATE MEDICAL SOCIETY.

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The next annual meeting of the Tri-State Medical Association will be held in Spartanburg, S. C. 1921

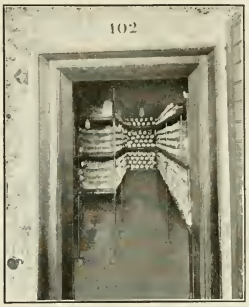
Influenza

Prevention and Treatment

Mixed bacterial vaccines for the prevention and treatment of common colds and influenza were first produced commercially in the United States by the Mulford Laboratories, in 1910. Since its introduction, the formula of **Mulford Influenza Serobacterin Mixed** has been maintained unchanged.

During the influenza epidemic of 1918, additional strains obtained from virulent cases in different parts of the country were added. These strains include:

Influenza Bacillus (Pfeiffer).
Streptococcus (hemolytic and viridans).
Staphylococcus (aureus and albus).
Pneumococcus (types I, II, III, IV).
Micrococcus catarrhalis.
Bacillus Friedlander.



Section of Incubator for growing bacteria.

The experience of physicians who used **Mulford Influenza Serobacterin Mixed** in industrial institutions and private practice confirmed their belief in its efficiency, both as a prophylactic and therapeutic agent.

Influenza Serobacterin Mixed is supplied as follows:

M 109-0—4-syringe . . 1 immunization.
M 109-9—5-mils . . . 2 immunizations.
M 109-4—20-mils . . . 8 immunizations.

As immunity is only relative, there is an advantage in four injections, beginning with a small initial dose, progressively increased, thus affording a more complete and lasting immunity.

Always specify "Mulford" on your orders and prescriptions

MULFORD FOR THE CONSERVATION OF LIFE LABORATORIES

41309

H. K. Mulford Company

Manufacturing and Biological Chemists

Philadelphia, U. S. A.

Miscellaneous

The next Annual Meeting of the North Carolina Medical Society will be held in Charlotte on April 20, 1920.

Cascara Evacuant or "Aromatic" Cascara?

There are two things about Cascara Evacuant that physicians like—first, its activity; second, its pleasant taste.

Cascara Evacuant is nearly twice as active as the "aromatic cascaras." This is due to a special process employed in making Cascara Evacuant—a process devised about twenty years ago by a member of the chemical research staff of Parke, Davis & Co. By the use of a neutral solvent this investigator succeeded in removing the bitter glucoside of cascara, without altering the other constituents of the drug.

"Aromatic cascaras," as most physicians know, are prepared by destroying the bitter glucoside of the bark by the addition of magnesium oxide or lime. These alkalies destroy not only the bitter glucoside, but, to a certain extent, the other constituents of cascara as well. This largely explains why the average "aromatic cascara" is only about one-half as active as Cascara Evacuant.

Cause and Cure.

Fecal infections as the underlying cause of arthritis and neuritis have been engaging the attention of the medical profession for the past few years.

One of the commonest of such infections is a cholecystitis with or without the formation of stones and often attended by infection of the ducts. Surgery is frequently indicated in such conditions, but a large proportion of patients are relieved or cured by proper diet and elimination.

PLUTO WATER is most efficient in the medical treatment of these cases. By quickly freeing the bowels from accumulated toxins and so preventing their absorption into the portal circulation, the hepatic cells are able to resume their normal function and the bile is rendered less viscid, thus materially assisting in reducing inflammation in the gall passages.

The French Lick Springs Hotel Co. will gladly furnish samples of PLUTO WATER—together with diet lists suited to these conditions—on request—charges prepaid.

When the physician is confronted with that formidable foe and accomplice of influenza—pneumonia, he is grateful for an efficient weapon of defense against this so aptly termed Captain of the Hosts of Death. Pneumococcus Antigen is said to be a most effective weapon. It played a heroic part in the pandemic of 1918-1919 and justified the hopes entertained for it.

Physicians who have used Pneumococcus Antigen extensively are enthusiastic over the results obtained from its use. Pneumococcus Antigen is prepared by Eli Lilly & Company of Indianapolis, not only in accordance with the formula but also in accordance with the method of Dr. E. C. Rosenow of the Mayo Foundation. Clinical evidence shows that when this Antigen is used early the pneumonias are milder, the patients more comfortable, the duration of the pneumonic process shorter and there are fewer complications, empyemas, and recurrences.

Eli Lilly & Company will be pleased to supply literature and further information. Requests should be addressed to the Home Office of the Company at Indianapolis.

To Control Pain Quickly.

To know one drug well is of more advantage than to possess scattered ideas concerning hundreds of medicinal agents. It is of tremendous advantage to know the realm of usefulness, the definiteness of action, the possibilities of dosage, the effects upon the stomach, bowels, the heart. the kidneys, and the digestive tract. The busy practitioner needs drugs of proven worth upon which he may depend with confidence not merely of their certainty, but of their promptitude in action.

The reliability of Phenalgin as an analgesic, its ability to control and counteract pain quickly and with certainty without any harmful effects upon the human mechanism gives it a wide

SPECIFIC INFECTIONS

Elixir Iodo-Bromide of Calcium Compound

With or Without Mercury Bichloride

THE TILDEN COMPANY

Manufacturing Pharmacists and Chemists

NEW LEBANON, N. Y. Since 1848 ST. LOUIS, MO.

NEURILLA FOR NERVE DISORDERS **NEURILLA**
If Patient suffers from **THE BLUES** (Nerve Exhaustion), Nervous Insomnia, Nervous Headache, Irritability or General Nervousness, give four times a day one teaspoonful **NEURILLA**
In nervous fretfulness of teething Children give five to twenty drops.
DAD CHEMICAL COMPANY, NEW YORK and PARIS.

Trade Mark Registered.
Gluten Flour
40% GLUTEN
Guaranteed to comply in all respects to standard requirements of U. S. Dept. of Agriculture.
Manufactured by
FARWELL & RHINES
Watertown, N. Y.

CAUTION

Sander & Sons' Eucalyptol

(Eucalypti Extract)

We received recently the following communication from Dr. W. H. Mayfield, Louisville, Ky.: "I have been using Eucalyptus, depending upon our drug stores which have be furnishing me the commercial article which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sauder & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source or the results the physician expects from any other manufacture.

The application of Eucalyptol proper is so positive and distinct in in results that no doubt must be entertained as to the ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insists upon receiving it."**
—Sander & Sons, Bendigo, Australia.

range of indications for use. Its therapeutic place is found in the relief of pain whether due to neuralgia, influenza, gout, menstrual disorders, or sciatica. It counteracts pain without interfering with the vital forces of the body. It promotes comfort without sacrificing the cardiac, nervous or gastric systems. It is an anodyne that possesses none of the dangers of the opiates. It allays pain without tending to establish a drug habit. It calms and relieves without interfering with the normal physiological reconstructive functions of the body. It is safe and effective as an analgesic, giving prompt relief to the patient, thus contributing to his welfare and recovery while completely safe and free from any harmful after effects. Phenalgin is a physiological adjuvant through the immediate relief of pain and the liberation of vital forces for the attack upon the underlying causes. It is therefore an ideal anodyne that merits confidence in the field of activity which it fills so well, namely, the relief of pain.

Free Iodine in Influenza and Pneumonia.

The value of Iodine in a free state as a combatant of toxins, was never more forcibly demonstrated than in the previous epidemic of influenza and pneumonia.

To increase cell and glandular activity and raise the resistance of the body, thus bringing about the elimination of urates, oxalates and chlorates, is the end to be sought. For this purpose Burnham's Soluble Iodine is the ideal product, as it can safely be given in such doses as may be necessary to accomplish this result. Its powerful stimulating action upon the cells and glands, in neutralizing and eliminating toxins, through increasing the resistance of the body, is well recognized.

It has been the practice of the most successful users in this field to start at once with 30 to 40 drop doses every 2 to 4 hours, either internally or hypodermatically. The latter method is only recommended in the more severe cases, especially where complicated with pneumonia, and in puerperal fever, septicemia, etc., and when so given, should be injected full strength deep in the gluteal muscles.

Hundreds of cases have been reported treated by this method, with prompt recovery, the respiration, pulse and temperature showing marked improvement after several doses. When sufficient dosage is given to produce the necessary anti-toxic effect, prompt and decisive benefit and speedy recovery may be expected. Write the Burnham Soluble Iodine Co. of Auburndale, Mass., for late literature.

A Valuable Remedy in Influenza.

The management of disease primarily involves promoting the comfort of the patient. While it is true that pain is frequently a helpful symptom to the clinician, its continued existence always tends to debilitate the patient. For this reason the relief of pain is of importance in rational therapeutic practice. While striving to prevent the exhausting effects of pain, it is essential, also to avoid disturbance of the digestive system, or the administration of drugs of a habit-forming character. Phenalgin gives prompt relief from pain without exerting any injurious action upon the human body. Its ability to control the pains of influenza, rheumatism, sciatica, constitute it an analgesic with distinct advantages. It makes the use of narcotic drugs unnecessary because it possesses remarkably effective powers of counteracting pain wherever it may be located without depressing the cardiac, nervous, or gastro-intestinal systems and without the slightest danger of inducing drug addiction. Incidentally, it may be said, no special narcotic blank is required for prescribing or dispensing it. It is not a drug that makes claims to be a panacea. Its wide range of usefulness is due to the fact that it can be relied upon to accomplish the relief of pain as it occurs in the course of numerous diseases, but especially the acute infectious ills.

Throat Infections.

In the treatment of diphtheria, nothing is of greater value for the destruction and removal of the membrane than peroxide of hydrogen. Similarly, as a cleansing antiseptic agent in the management of follicular tonsilitis, it is exceedingly valuable. These specific illustrations are merely indicative of a wide range of usefulness of a potent oxidiz-

Vapo-Cresolene

For Forty Years

Vaporized Cresolene

has held its position as a valuable remedy for certain bronchial diseases of childhood.

It is particularly useful in the treatment of the very young.

Cresolene is indicated in Whooping Cough, Spasmodic Croup, Bronchitis, Asthma, Broncho-pneumonia, Coughs and the bronchial complications incident to Scarlet Fever and Measles.

Vaporized Cresolene is destructive to Diphtheria bacilli and may be advantageously used in connection with the treatment of this disease.

Let us send you our descriptive and test booklet which gives liberal sample offer.

THE VAPO-CRESOLENE CO., 62 Cortlandt Street, NEW YORK. Leeming-Miles Building, Montreal, Canada

Pond's Extract

Few remedies will be found so promptly effective in relieving the acute distress of Tonsillitis as Pond's Extract. Used as a gargle every hour—a tablespoonful to a half glass of hot water—its soothing effect is soon manifested by a marked decrease of the pain and discomfort, and a decided improvement in the throat condition.

POND'S EXTRACT CO.
New York
London

Tonsillitis

WANTED

Intelligent Ambitious Young Women to enter the Nursing Profession.

The Greenville City Hospital offers a course of training to young women fitting them for the field of general nursing and meeting the requirements of the Army and Navy Nursing Corps, and the Red Cross.

Pupils will be lodged in the delightful new nurses' home—have an eight-hour working day, daily classes and lectures.

Apply for further information to

Superintendent City Hospital,
Greenville, S. C.

Graduate Nurses wanted for hospital positions. Apply to the office of this Journal for information—328 N. Tryon street, Charlotte, N. C.

The Charlotte Sanatorium, Charlotte, N. C., wants, in the very near future, six or eight pupil nurses. If any of the subscribers of this journal who know of young ladies who would be suitable for a position of this kind, if they will correspond with the Charlotte Sanatorium, Charlotte, N. C., they can get a position.

WANTED—An experienced trained nurse to act in the capacity of head nurse and matron in Glenwood Park Sanitarium. W. C. Ashworth, President, Greensboro, N. C.

KALMERID CATGUT

A Physiologically Correct Germicidal Suture

DAVIS & GECK, INC.
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Sal Hepatica

THE STANDARD SALINE LAXATIVE

Samples on request

Bristol-Myers Co.
New York

ing disinfectant that despite its bactericidal power is perfectly harmless to mucous membranes. While much has been written concerning the therapeutic indications for the use of peroxide of hydrogen, insufficient stress has been placed upon the practically unlimited field of prophylaxis. The vast number of communicable diseases that are spread by the oral and nasal secretions suggest at once the necessity for greater attention to naso-oral prophylaxis. In this connection it is apparent that the disinfection of the oral and nasal cavities possesses a double value, (1) by protecting the individual from infection, (2) by protecting others from the dangers inherent in the transfer of pathogenic bacteria through coughing, spitting and sneezing. Dioxygen possesses unusual merit, not merely because it chances to be a non-irritating though powerful antiseptic and disinfectant, but because it is practically odorless and tasteless. Its hygienic advantage is enhanced by reason of its harmlessness and convenience. A high degree of purity and stability give it an oxygen-liberating power that assures a germicidal efficiency requisite for maintaining the naso-oral cleanliness so essential in the protection of one's family, friends and associates. The reliability of Dioxygen as a prophylactic agent has been thoroughly demonstrated through years of practical experience in the hands of conscientious clinicians, who emphasize the necessity of disease prevention as part of their satisfaction in the practice of scientific medicine.

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Advantages of Handling Advertised Goods.

There is a similarity between well-advertised goods and "coin of the realm." They are both standardized and therein is to be found the peculiar and chief value of each of them, says a booklet just issued by Armour and Company. To illustrate: A silver dollar is just so much metal plus the insignia of the United States Government. A lump of silver has an intrinsic value, to be sure, only you cannot spend it. Put the insignia on it and everybody will recognize its value and accept it in payment of debts.

"So it is with a package of merchandise," the booklet continues. "An advertised commodity must first be of uniform quality, else it would be the height of folly to advertise it; for there would be no repeat orders to pay for the advertising. Now add a trade-mark to this unifor mquality. Then make the meaning of the trade-mark well known by advertising and you have a standardized product. This is what makes a good seller for the merchant. Everybody accepts the product on its face value. There is no uncertainty as to the worth of either.

"On the other hand, take your unadvertised product. Its quality, to begin with, is an unknown factor. It may be very good or it may be very bad. In any event there is not the compelling motive to put uniform high grade quality into such a product, for no advertising investment is at stake.

"You may add a trade-mark to this product but if it is a trade-mark that has not been heralded broadcast and if it is one about which people know practically nothing, the buyer is still at sea. If he buys the product he must buy it on faith and take a chance. People do not like to buy in this manner and it is not necessary in these days of standardized goods. So you have in this instance a non-standardized commodity. It is a poor seller.

"Profits depend directly upon rapidity of turnover. Some merchants are deluded by the long margins offered them as special inducements to handle non-standard brands. Long margins are inconsequential compared to the absorbingly momentous stream of turnover. It takes but litle mathematics to make plain that three profits of 2c each are bttter than one profit of 4c. Standardized, advertised brands are quick movers. They are the ones that put the profits into the cash till—the hustlers, the real workers, that make a business successful."

The advertising messages of Armour and Company reach millions of people. The old fallacy that advertising adds cost to the commodit yand that somebody must foot the bill has been exploded long since. For every dollar taken in Armour spends about one-eighth of a cent for advertising. That

Glykeron And Glyco-Heroin

ARE SYNONYMOUS APPELLATIONS AND ARE NOW KNOWN AS SUCH TO ALL DISPENSING PHARMACISTS

THESE designations may now be used interchangebly by the physician when prescribing the prepration originally known only as Glyco-Heroin S mith.

As a safeguard against having worthless imitations of the prepration dispensed, it is suggested that the physician use the name

GLYKERON

which is non-descriptive and more distinctive, when prescribing GLYCO-HEROIN (SMITH) for

Cough, Asthma, Phthisis, Pneumonia, Bronchitis, Laryngitis, Whooping-cough and kindred affections of the respiratory system.

DOSE—The adult dose is one teaspoonful every two hours, or at longer intervals as the individual case requires.

For children of ten years or more, the dose is from one-quarter to one-half teaspoonful; for children of three years or more, five to ten drops,

The composition of GLYCO-HEROIN (SMITH) has not been modified in the slightest degree.

MARTIN H. SMITH COMPANY

New York, U. S. A.

one-eighth of a cent buys larger sales volume, easier selling and quicker turnover. It makes possible a better product at a cheaper price, more profit for Armour and more profit for the dealer. Not Armour, nor the dealer, nor the consumer pays for Armour advertising; it pays for itself.

Armour Laboratory has in operation what is said to be the greatest sterilizing apparatus in the world for the exclusive use of medical and surgical products. Any desired temperature may be obtained in the automatically regulated chambers.

Self recording thermometers keep records of the temperature during the process of sterilization. There is no guess work as to the accuracy of the individual in charge of the sterilization plant. The charts of the recording thermometers tell the story. These excellent facilities make it possible to sterilize thousands of gross of ligatures at the same time and thus obtain a product of perfect uniformity and absolute sterility.

Armour and Company are equipped to supply ligatures in large quantities and have gone to great expense to ensure perfection of the product sold under the Armour label.

Indications for the Transfusion of Citrated Blood.

[Apropos to the recent papers and discussions concerning the various methods of and indications for Blood Transfusion and Saline Injections it is interesting to quote the following from "Le Monde Médical."—Ed.]

Thanks to the researches of Richard Lewisohn d'Agote (of Buenos-Ayres) and Jeanbrau (of Montpellier) who, curiously enough, recommended the self-same method almost simultaneously without any knowledge of each other's investigations, we find ourselves in possession of a procedure for the transfusion of blood which can be applied by any practitioner without the slightest difficulty since the transfusion of citrated blood only involves two venous punctures. Lewisohn who once again describes in the Presse Médicale the technique details of his method, in the same article gives a list of the affections, medical and surgical, in which this form of transfusion is indicated.

In the very first place he mentions hemophilia in the young, thus confirming Chalier's idea that a single transfusion of maternal blood to the offspring may stultify the tendency to hæmophilia. The thing is quite manifest in the melœna of the newly-born and the plan adopted by New York practitioners demonstrates the easiness of this little operation. Lewisohn indeed remarks that "the infants are usually brought to the hospital only on the second or third day from birth by which time they are almost bloodless (as a consequence of the melœna). One of the residents is at once dispatched to the mother and returns with 100 cc. of citrated blood." The operation proves immediately and invariably successful and the child's development thenceforth proceeds on normal lines. The transfusion is effected by means of a fine cannula introduced in to the median cephalic vein. We can dispense with any examination of the blood to be injected (indispensable in other instances) because there can be no hæmolysis as between mother and child. In purpura the results are much less satisfactory. In intestinal hæmorrhage transfusion may be urgently indicated.

In typhoid fever Lewisohn holds that we ought always to have a "giver" at hand because here again transfusion may be urgently required. According to him the same precaution is indispensable when we are about to operate a cholæmic patient. In rupture of an extra-uterine pregnacy transfusion should be done directly after the operation. Post-operative and traumatic hæmorrhages present the same imperious indication.

With regard to diseases of the blood the results are very variable. Admirable as a general rule in primary and secondary anæmia we usually only obtain temporary improvement, though interesting from the point of view of the prolongation of life, in pernicious anæmia. In leukæmia the results are very disappointing.

Transfusion can only be had recourse to in sub-acute cases of chronic cases of septicæmia. It is contra-indicated in acute cases. It may accelerate convalescence after serious disease and after grave operations indeed in enfeebled

The Prevention of Influenza and Other Infectious Diseases

The health authorities have emphasized the great importance of faithful attention to the personal hygiene in preventing influenza and associated infections. Especially do they lay stress on frequent disinfection of the nose and mouth, together with effective cleansing of the hands.

For accomplishing these all-important ends, there is probably no antiseptic or disinfectant that is used more extensively or has been found more useful, convenient or effective than

Dioxogen

Pure, non-irritating, non-toxic, tasteless, colorless, yet more effectual in germ-killing power than the usual carbolic or bichloride solutions, Dioxogen has the great advantage of assuring safety with maximum germicidal potency.

Nose and Mouth Disinfection

One part Dioxogen to six or seven parts of warm saline solution is a remarkably effective gargle or nasal douche.

Hand Cleansing

After washing hands with soap and water, apply a solution of Dioxogen and warm water—equal parts. Rub in well, especially around the nails.

The routine systematic use of Dioxogen in countless hospitals, homes, offices and factories, as so many physicians have recommended, will unquestionably prove of very great help in preventing the development of influenza and other acute infectious diseases in innumerable cases.

THE OAKLAND CHEMICAL CO.
59 Fourth Avenue, New York

subjects it would be advisable to administer it before the operation because they will then be better able to resist the shock of the operation.

Pneumococcal Peritonitis.

We have seen reported recently from reliable observers a series of cases of pneumococcal peritonitis associated with or supervening a pneumonia.

The picture is that of dramatic abdominal symptoms which often give rise to errors in diagnosis and the gravity of which is obvious.

Either primarily, or in the course of a pneumococcal infection with a pulmonary or other localisation, we suddenly witness the supervention of acute abdominal symptoms sharp pain, more or less complete arrest of fæces and flatus, tympanites which may be so pronounced as to mask the liver dulness, intestinal tension and, it may be, cæcal gurgling. The temperature rises and may reach 103° or more, the pulse is rapid and small, the facies changes and the tongue is dry, in short we get the classical picture of acute peritonitis in which, however, there is lacking the focus of localization, the peculiar stabbing pain and the signs of perforation.

It runs a variable course. There are a certain number of fortunate cases in which, under the influence of diet and ice, the symptoms clear up and everything quiets down in the course of a few days.

There are others in which the septicæmic symptoms get worse, with a rapidly fatal termination. When examined post mortem we find red peritonitis with a little turbid serum in the cul-de-sac and the intestine much distended by gas.

A third course, the one in fact most commonly met with, is the one in which the affection runs on to suppuration, either diffuse with a rapidly fatal issue, or localized with secondary opening.

We often witness the creation of secondary foci which may be foci of broncho-pneumonia or empyema, free or interlobar, or suppurating arthritis or parotitis. These localizations play the part of fixation abscesses and have a favorable influence on the course of the disease. One often notes that the supervention of supuration in a joint coincides with the immediate quiescence of the abdominal symptoms.

We may add that when an abscess forms surgical assistance is necessary because pneumococcal pus does not appear to have any tendency to undergo spontaneous absorption.

Traveling Exhibits Preach Prophylaxis in Rural Districts.

The value of the travelling exhibit in impressing upon communities removed from large centers the importance of disease prevention, campaigns for which are already a part of the civic programs of a large number of American cities, is everywhere receiving impetus through Red Cross.

In North Carolina that organization has already equipped such an exhibit, at the request of the State Board of Health, and demonstrations in every rural section of the Land of the Long Leaf Pine will soon be regularly recurring features of the year's calendar.

Bringing health education directly before the people, in this way, is at once the most intensive and most expansive method of waging war against conditions, brought about through ignorance and prudery, which were revealed in such appalling proportions with the mobilizing of the country's man power.

The sum of $10,000 has just been appropriated by American Red Cross to this remedial work, through the American Social Hygiene Association to be used in preaching the gospel of health and morality through the graphic medium of the travelling exhibit. A motion picture machine with films and slides on social hygiene, mounted on a motor truck, a fireproof booth suitable for setting up in schools or churches, and quantities of literature and posters for wholesale circulation comprise the travelling exhibit. Its representatives will go before it all along the itinerary, to study the special needs of each community so that slides and suggestions particularly applicable to them, may be prepared.

All the wealth of experience and data growing out of the efforts carried on in our cantonments will be available for the peace program of the association, which has proved so indisputably its competence to direct prophylaxis campaigns that its program has been adopt-

The Storm Binder and Abdominal Supporter

PATENTED

Adapted to Use of Men, Women and Children and Babies

HIGH AND LOW OPERATIONS, PTOSES, HERNIA, OBESITY, PREGNANCY, FLOATING KIDNEY, RELAXED SACRO-ILIAC ARTICULATIONS, PERTUSSIS, &c.

Sacro-Iliac Belt

No Whalebones No Rubber Elastic, Washable as Underwear

Inguinal Hernia Belt

Send for new folder with testimonials of physicians. Mail orders filled at Philadelphia within twenty-four hours

KATHERINE L. STORM, M. D., 1541 Diamond St.

PHILADELPHIA, PA.

PAIN

though primarily a symptom, will, if allowed to continue, soon depress or disturb every function of the body.

The prompt relief of pain, therefore, is always imperative, and to accomplish this

PHENALGIN

has no superior. Pain, no matter how severe or where located, is quickly controlled — and with none of the drawbacks of the opiates or the other narcotic drugs.

The every day experience of thousands of physicians has shown conclusively that no other anodyne is so satisfactory in its effect, and at the same time so free from disagreeable or harmful action.

The use of Phenalgin means the relief of pain — promptly, safely and satisfactorily — without upsetting the stomach, suppressing the secretions, or creating a habit. *No special blank or records required for its use.*

Well has it been termed by those who use it in preference to any other analgesic — "the logical supplanter of opium."

Samples on request

ETNA CHEMICAL CO.
59 Bank Street
New York

"Iodine In Its Safest and Most Effective Form"

This is the uniform verdict of medical men who have ever given

BURNHAM'S SOLUBLE IODINE

a comprehensive trial in serious cases of septic poisoning, pneumonia, influenza, empyema, or of the acute and chronic infections generally.

Free from gastric disturbance or other objectionable effects, this time-tried preparation owes its value to the fact that it presents iodine in a form that can be used in doses large enough and for sufficient periods to assure the results desired.

Hypodermic use is preferable in severe cases. 20 to 40 minims every three or four hours, full strength deep in the gluteal muscles, until general improvement is noted.

Write for interesting data on the effective dosage of iodine

Burnham Soluble Iodine Co.
Auburndale, Mass.

ed in substance, by legislatures of almost every state.

The American Social Hygiene Association, under that name, dates from 1914, when it was established through the efforts of the American Vigilance Association and the American Federation for Sex Hygiene. Subsequently it was merged with the New York Social Hygiene Society, founded in 1905 by Dr. Prince A. Morrow, under the name of the Society of Sanitary and Moral Prophylaxis. More than half a million dollars, subscribed through private sources, was devoted by the association during the war to the work of supplementing governmental efforts to combat venereal disease. The same spirit of co-operation which made the association so effective in supplementing official agencies entrusted with the promotion of prophylaxis methods in military and naval establishments will be exercised in the case of the travelling exhibit. In all cases the organization will avail itself of the advice and assistance of existing public health agencies and societies.

North Carolina's Red Cross travelling exhibit will receive from the State Board of Health a rental sufficient to cover the actual expenses.

Thanks for Radium.

Radium has been spoken of as a scavenger, in that it possessed the power to clean out malignant cells, many times, in a more thorough manner than the knife.

It has been learned that aside from its direct lethal action on embryonic cells, radium causes the development of connective tissue, which follows closely on a local outpouring of lymphocites. This connective tissue formation is present wherever the gamma ray has penetrated in diseased tissue. It has also been found that some cancer cells on the outskirts of the zone of irradiation are not definitely put out of commission, but lie dormant for a time, surrounded by dense bands of scar tissue. In time these cells become active and commence rapid division, eventually causing destruction of tissue. This recurrence becomes evident because of the patient's complaint that she is not feeling as well as she did at a time soon after the first irradiations. Examination will show destruction of tissue.

Instead of condemning radium for not making a clean job at the time of the first application, we should be devoutly thankful that we have at hand an agent that will again exert its beneficent influence on these lawless cells and in many cases vanquish them.

It has been found, however, that in these recurrent cases the attack by radium must be powerful. This period is no time for temporizing and the dose employed must be large, but heavily screened. Mass formation in the attack is necessary, because we have been warned by the recurrence that the enemy has much fighting strength left, otherwise there would be no recurrence.

The medical profession should be eternally thankful to the indefatigable workers in the field of physics for giving to them a therapeutic agent capable of producing such salutary results as radium.

The older members of the profession can recall the various remedies that have been used in a vain effort to eliminate cancer and the disappointment experienced when each in its turn was cast aside and the hunt again taken up.

Aside from the knife, the actual cautery has had more users than any other one thing in the attempt to destroy the local manifestations of cancer. But this was long ago found to be purely superficial in effect. It has no effect on cancer cells a little deeper than the actual contact of the iron. And yet the soldering iron is used to this day, for the reason, we are inclined to believe, that the surgeon realizing that his knife will undoubtedly miss some of the cancer cells and the soldering iron in his hand makes him feel that he has now done all that is humanly possible for the patient and can wash his hands of all responsibility. We think that the profession, now that they are assured that the rays of radium are not merely superficial in their killing power of cancer cells, but that they pentrate to a depth of two inches at least are beginning to employ it not only because of this fact, but that it is less disturbing to the patient, already depleted by the disease.

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Lewellys F. Barker, Pres.,
Baltimore, Md.

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Annual Meeting at Florence, S. C.
April 15-16, 1919.
Edgar A. Hines, M. D., Sec.,
Seneca, S. C.
James A. Hayne, M. D., Pres.,
Columbia, S. C.

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Annual Meeting at Richmond, Va.,
October, 1919.
Paulus A. Irving, M. D., Sec.,
Farmville, Va.
Ennion G. Williams, M. D., Pres.,
Richmond, Va.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Annual Meeting at Mobile, Ala.,
April 21, 1919.
H. G. Perry, M. D., Sec.,
Montgomery, Ala.
Isaac L. Watkins, M. D., Pres.,
Montgomery, Ala.

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Annual Meeting at Nashville.
(Date not decided) 1919
Olin West, M. D., Sec.,
349 Doctors' Bldg., Nashville, Tenn.
Richmond McKinney, M. D., Pres.,
Memphis, Tenn.

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Annual Meeting at Hattiesburg
(Date not decided) 1919
T. M. Dye, M. D., Sec.,
Clarksdale, Miss.
W. S. Leathers, M. D., Pres.,
University, Miss.

LOUISIANA STATE MEDICAL SOCIETY

Annual Meeting at Shreveport, La.,
April 8-10, 1919.
P. T. Tolbot, M. D., Sec.,
New Orleans, La.
W. H. Knolles, M. D., Pres.,
New Orleans, La.

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April, 1920
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Oxford, N. C.
Carl V. Reynolds, M. D., Pres.,
Asheville, N. C.

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Annual Meeting at Winston-Salem, N. C.
February, 19-20, 1920
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Rolfe E. Hughes, M. D., Sec.,
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Annual Meeting at Waco, Texas,
May 13-15, 1919.
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Fort Worth, Texas.
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June, 1920.
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Annual Meeting at Miami, Fla.
(Date not decided)
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Annual Meeting at Atlanta, Ga.
April 16-18, 1919.
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Annual Meeting at Ashland, Ky.,
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(Date not decided) 1919
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Secretary, Dr. Seale Harris,
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February, 1921.
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Secretary, Dr. Jas. K. Hall,
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Annual Meeting at New Orleans, La.,
June, 1920.
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Secretary, Dr. J. MacDonald, Jr.,
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Annual Meeting at Charlotte, N. C.,
April, 1920.
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Secretary, Dr. Benj. K. Hays,
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October, 1920.
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Secretary, Mr. G. H. Winfrey,
Richmond, Va.

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Annual Meeting at Greenville, S. C.,
April 20-21, 1920.
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Secretary, Dr. E. A. Hines,
Seneca, S. C.

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Annual Meeting at Anniston, Ala.,
The third Tuesday in April, 1920.
President, Dr. Jas. S. McLester,
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Secretary, Dr. H. G. Perry,
Montgomery, Ala.

TENNESSEE STATE MEDICAL ASSOCIATION
The first Tuesday in April, 1920.
Annual Meeting at Chattanooga
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Sparta, Tenn.
Secretary, Dr. Olin West,
Nashville, Tenn.

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Annual Meeting at Jackson, Miss.,
May 11-12, 1920.
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Secretary, Dr. T. M. Dye,
Clarksdale, Miss.

LOUISIANA STATE MEDICAL SOCIETY
Annual Meeting at New Orleans, La.,
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Lecompte, La.
Secretary, Dr. P. T. Talbot,
New Orleans, La.

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Annual Meeting at Macon, Ga.,
May 5-6-7, 1920.
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Secretary, Dr. W. C. Lyle,
Atlanta, Ga.

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Annual Meeting at Lexington, Ky.,
(Date not decided), 1920.
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Frankfort, Ky.
Secretary, Dr. A. T. McCormack,
Louisville, Ky.

FLORIDA MEDICAL ASSOCIATION
Annual Meeting at Daytona, Fla.,
President, Dr. Wm. E. Ross,
Jacksonville, Fla.
Secretary, Dr. Graham E. Henson,
Jacksonville, Fla.

STATE MEDICAL ASSOCIATION OF TEXAS
Annual Meeting at Houston, Texas,
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UNDER NEW MANAGEMENT

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Charlotte, N. C., April, 1920

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35 N. Dearborn St., Chicago.

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Annual Meeting at Anniston, Ala.,
The third Tuesday in April, 1920.
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Secretary, Dr. H. G. Perry,
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The first Tuesday in April, 1920.
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President, A .F. Richards,
Sparta, Tenn.
Secretary, Dr. Olin West,
Nashville, Tenn.

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May 11-12, 1920.
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Secretary, Dr. T. M. Dye,
Clarksdale, Miss.

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Secretary, Dr. P. T. Talbot,
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Annual Meeting at Macon, Ga.,
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Annual Meeting at Lexington, Ky.,
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The Importance of a Hematinic in Syphilis

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